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PENNSYLVANIA'S RECREATION PLAN

Milton J. Shapp, Governor

03-53-118-3

PREPARED BY:
GOVERNOR'S OFFICE OF STATE PLANNING AND DEVELOPMENT
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PENNSYLVANIA'S

RECREATION PLAN

Milton J. Shapp, *Governor*
Harrisburg, Pennsylvania

Prepared by:

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A. Edward Simon, *Director*

The preparation of this plan was financed in part through a planning grant from the Bureau of Outdoor Recreation, Department of the Interior, under the provisions of the Land and Water Conservation Fund Act of 1965 (Public Law 88-578).

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COMMONWEALTH OF PENNSYLVANIA
OFFICE OF THE GOVERNOR
HARRISBURG

MILTON J. SHAPP
GOVERNOR

March 1976

To the Citizens of Pennsylvania

I am pleased to transmit "Pennsylvania's Recreation Plan - 1975". It is the Commonwealth's official statement of the policies and priorities that will guide the management and development of our recreational resources.

Since the turn of the century when the Commonwealth legally recognized a responsibility to conserve natural resources, a State system of forest, parks, game lands, historic and cultural sites, and lakes has been developed totaling almost three and a half million acres. In the past twelve years, through the State's two bond issues, PROJECTS 70 and 500, local governments have developed 50,000 acres of land for recreation purposes, while State agencies, under PROJECT 70, have acquired more than 104,000 acres. The foresight of past generations and the growing commitment of Pennsylvanians to improve our natural environment affords an invaluable resource base. Yet much more remains to be done. What has been done bequeaths us the responsibility and the opportunity to act now to provide meaningful recreational opportunities for all.

"Pennsylvania's Recreation Plan - 1975" examines what needs to be done and outlines the programs that are necessary for continued quality recreation opportunities throughout the State.

Sincerely,

Milton J. Shapp

Milton J. Shapp
GOVERNOR

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chapter I

Introduction and Summary

Chapter I

INTRODUCTION AND SUMMARY

The Plan

Pennsylvania's Recreation Plan—is the third major recreation policy statement prepared by the Commonwealth since the passage of the Federal Land and Water Conservation Fund Act in 1964. The two earlier plans, *The Pennsylvania Statewide Comprehensive Outdoor Recreation Plan—1971* and *A Statewide Outdoor Recreation Plan—An Interim Report—1965* served to guide the State's recreation and open space programs and to establish and maintain Commonwealth eligibility for funding under the Federal Land and Water Conservation Fund Act. This plan updates *The Pennsylvania Statewide Comprehensive Outdoor Recreation Plan—1971*. The reader should note that while *Pennsylvania's Recreation Plan* satisfies the legal requirements of the Statewide Comprehensive Outdoor Recreation Plan, changing the name of the plan document has been a deliberate effort to signal that in future years, planning and policy dealing with recreation cannot be limited to strictly out-of-doors activities. Although this plan per se is primarily oriented toward the existing programs and identified potentials which are out-of-doors, the Commonwealth intends to move in the direction of including both indoor and outdoor recreation studies in future planning efforts.

Purpose for the Plan

The most fundamental goal of *Pennsylvania's Recreation Plan* is to make determinations of the current and future recreation demands that Pennsylvanians as well as visitors and tourists are and will be placing on the Commonwealth's recreation resources. This plan serves as a medium through which the activities of the many State agencies which provide recreation opportunities can be coordinated; it will also provide, to interested private businesses, information about recreational potential within the State.

FINDINGS, NEEDS AND RECOMMENDATIONS

"Pennsylvania's Recreation Plan" is the culmination of over three years of coordinated research and analysis of recreation in the Commonwealth. In the course of this planning process five major findings have emerged that must be addressed and acted on in order to provide a broader and more effective system of recreation services. These findings, along with brief summaries of issues and needs that predicated them, are presented here. They are accompanied by pertinent legislative and agency recommendations.

Finding #1

A major finding of "Pennsylvania's Recreation Plan" is that the close to home, day-to-day recreation needs of many are not being met satisfactorily.

This problem is particularly acute for urban dwellers, families without cars, families with annual incomes below $7,000, the handicapped, the elderly and, to a lesser extent, racial minorities and women.

At the present time only about one-half of Pennsylvania's local governments provide at least one recreation area. Collectively, this amounts to 127,000 acres of recreation space or 1.28% of the State's total recreation acreage.

According to national standards there is an existing deficiency of 70,000 acres of developed recreation areas at the local level. By 1985, this shortage is expected to increase to 128,000 acres. If this projected deficit is to be eliminated, an effort three times greater than that of the past dozen years must be implemented in the coming decade.

Although the progress made through PROJECTS 70 and 500 significantly reduced the acuteness of the local recreation facility shortage, major deficits for specific kinds of facilities still exist. If disparities are to be alleviated, Pennsylvania must enact a new grant-in-aid program to assist local governments and those barriers which have prevented local government participation in state-federal assistance programs must be removed.

There is also a special need for communities to address the problems of people who are recreationally deprived because of low income, not owning a car, or being handicapped or elderly. According to the *Pennsylvania Recreation Survey* the per capita activity days for households without a car is 50.14 compared with 136.64 for those with cars. For families with incomes of less than $7,000 the rate is 69 days compared with 148 for families with incomes exceeding $7,000. For the handicapped and elderly participation rates are significantly less for all activities included in the survey. These statistics clearly indicate a critical lack of close-to-home recreation facilities and programs.

Recommendations

Legislation—Federal

1. The authorized annual ceiling of the Federal Land and Water Conservation Fund Act should be raised.

2. The Federal Land and Water Conservation Fund Act should be amended to allow use of funds for indoor facilities.

Legislation—State

1. A $15 million annual grant-in-aid program should be enacted to assist local governments in providing recreation facilities and services.

Planning—State Agencies

1. The *Department of Community Affairs* should undertake a planning study of the possibilities for achieving closer cooperation among local public, nonpublic, and quasi-public recreation providers.

2. The *Department of Transportation* should initiate studies to serve as a catalyst for providing mass transit to state and federal recreation areas within the Commonwealth for the elderly, poor, and the handicapped.

3. The *Department of Education* should require local school districts to consider in their long-range plans the community needs that can be accommodated at school facilities.

Acquisition—State Agencies

1. The *Department of Community Affairs* should be authorized to assist local governments in accelerating acquisition of land for local parks. Highest priority should be in Uniform Regions 1, 3, 5, 6, and 8 where the greatest deficiencies in park acreage occur. The major emphasis should be directed toward creating municipal scale parks.

2. The *Department of Community Affairs* should be authorized to assist local governments in acquiring existing structures suitable for indoor recreation activities. Warehouses, abandoned schools, and industrial buildings can be renovated to meet year-round recreation needs.

3. The *Department of Community Affairs* should be authorized to administer a financial incentive program to assist local governments in the preservation, conservation and, where necessary, acquisition of open space and conservation areas such as steep slopes, aquifer recharge areas, flood plains, and river and stream valleys.

4. The *Department of Environmental Resources* should continue to acquire land to meet the recreation needs of the heavily populated regions of the Commonwealth by expanding the State Park System. Special emphasis should be placed on the recreation potential of flood plains and river corridors.

5. The *Game Commission* should accelerate acquisition of game lands near metropolitan centers.

6. The *Fish Commission* should continue its program of acquiring boating and fishing access areas on the State's major waterways.

Development—State Agencies

1. The *Department of Community Affairs* should be authorized to assist local governments in establishing and maintaining year-round recreation programs on a limited demonstration basis in communities where such needs exist.

2. The *Department of Community Affairs* should be authorized to provide increased financial assistance for intergovernmental cooperative recreation projects, particularly where intergovernmental cooperation in providing recreation services is the most efficient method of meeting public needs.

3. The *Department of Community Affairs* should be authorized to provide funds to school districts for the development of public recreation facilities on school district land where formal agreements exist between the school district and the local government.

4. The *Department of Environmental Resources* should expand its response to the recreation needs of the urban resident by optimizing the use of State-owned urban resources such as river corridors. To utilize these river corridors, the Department will analyze flood plains, dams, islands, desilting basins, and canals for their recreational potential and ownership and investigate, as may be required, sensible uses and appropriate management levels.

5. The *Game Commission* should expand the Cooperative Farm Game, Forest Game, and Safety Zone programs wherever necessary to provide (1) additional hunting areas to meet an increasing demand and (2) hunting areas where private lands are largely closed to public hunting.

Finding #2

Effective public information programs will significantly increase the use of State recreation areas and facilities.

In the past, the main focus of the Department of Environmental Resources' programs has been the conservation of irreplaceable natural resources and the development of those resources into an extensive system of parks and forests whose intrinsic value to the public will continue to increase. However, due to budgeting constraints that have precluded an aggressive public information program, public awareness of what facilities exist and where they are is not widespread.

During the past five years, attendance at State parks, in spite of sixteen new park openings, has stabilized and in the past two years has actually decreased. In terms of absolute numbers, the decreases have not been substantial (2%), but they do suggest a trend. Data collected for occupied campsites and the average size of visiting parties in State parks is corroborative. Between 1972 and 1975 there was a net decrease in campsite occupancy from 1,583,000 to 1,501,000 and the average party size decreased from 6.5 in 1971 to 4.7 in 1975. In addition, the number of people per car decreased from 4.0 in 1971 to 3.0 in 1975.

One of the findings of the Pennsylvania Recreation Survey is that a well engineered public information program would have a substantial impact on State park and forest use. Increased use of existing facilities would enable the State to satisfy a larger part of the State's recreation demand without additional capital expenditures. Also, a public information system could be used to direct the public to under-used areas.

However, a public information program that engenders increased use cannot be undertaken without consideration of the increased costs for operation and maintenance that will result subsequently. Also, increased levels of use will require specific determinations of the optimal carrying capacities of each facility. Consequently, initiation of an effective public information program is only a part of what must be a thorough reassessment of the effects on operation and maintenance.

Recommendations

Legislation—State

1. The Legislature should appropriate funds specifically earmarked for expansion of the *Department of Environmental Resources'* public information capability. Budgeting priorities within the Department have prevented the creation of an effective program in the past.

Management—State Agencies

1. The *Department of Environmental Resources* should encourage off-season and weekday use of the Department's recreation resources. The thirteen week summer season entails 70-80% of the annual State park use, while off-season use accounts for the remaining 20-30%. Moreover, approximately 60% of the use occurs on Saturday and Sunday. Many facilities could be made available for increased use by winterizing them or by employing design methods sensitive to year-round use.

2. The *Department of Environmental Resources* should inform the public of the low density recreation potential of State forest lands. The Department should disseminate more information on the recreational uses of State forest lands. These uses include backpack camping, picnicking, cross-country skiing, hiking, nature study, photography, bird watching, canoeing, hunting and fishing.

3. The *Department of Environmental Resources* should place greater emphasis on its public information awareness program. The policy guidelines of the Department's "Outdoor Recreation Horizons" emphasize the need for "providing the greatest benefit to the greatest number of citizens," and recognize that "...the Department cannot function without the understanding and support of an informed citizenry." A system to effectively disseminate information to both park and forest users and non-users plays a great part in meeting these goals.

Finding #3

The Commonwealth must accelerate its programs of identifying, classifying, and cataloguing rare or unique natural and historic areas.

A large part of the Commonwealth's responsibility in recreation has evolved through ownership and management of physical and cultural resources. Traditionally, these areas include scenic vistas, unique recreation resources, and areas of ecological importance.

The need to accelerate the pace of identification and preservation of rare and unique resources has become critical. Although the public is becoming increasingly sensitive to ecological values, development, in the past, has been guided largely by matters of economic expediency. If resources are to be protected for posterity, they must be identified before the encroachment of development so that measures may be employed to ensure that their integrity is kept intact.

Recreation and open space planning is predicated on the observation that development must be managed in order to preserve a desirable relationship between people and the amount of land that is necessary to satisfy their recreation, leisure, and aesthetic needs. As residential, commercial, and industrial development progresses, unique resources must be protected and adequate amounts of open space preserved.

Specifically, the Commonwealth must accelerate planning programs that identify and evaluate wild and scenic rivers, wetlands, islands, trails of all kinds and scenic areas such as ridgetops. Also, an effort must be made to devise techniques for measuring the adequacy of open space, especially in metropolitan areas.

Recommendations

Legislation—Federal

1. Planning projects funded through the Federal Land and Water Conservation Fund Act should be allowed to include projects that are regional in scope. Statewide plans as well as specific development plans

are eligible for reimbursement funding, but area-wide studies, which Pennsylvania desperately needs, are not now permitted.

Legislation—State

1. The Legislature should enact special appropriations to the appropriate State agencies to facilitate an accelerated program of identifying rare and unique natural and cultural resources.
2. The Legislature should authorize the allowable per acre expenditure for the *Game Commission* to be increased from $100 to $200.
3. The Legislature should authorize the creation of a State system of scenic and recreational trails.
4. The Legislature should authorize and establish the legal framework in which statewide land use planning will be conducted. Such planning would subsequently provide the Legislature with information pertinent to the consideration of needed land use regulations.
5. The Legislature should mandate a means through which additional protection is afforded to rare or unique areas such as wetlands, islands, ridgetops, and aquifer recharge areas where full State ownership is not feasible.

Planning—State Agencies

1. The *Department of Environmental Resources* should assume the lead agency role in the development of a State scenic and historic trails system. Working through regional and local planning agencies, the Department should develop the identification and screening processes, management criteria and design standards, as well as the financial and administrative programs necessary to carry out a State trails system.
2. The *Department of Environmental Resources* should continue the screening and identification of rivers pursuant to Pennsylvania's Wild and Scenic Rivers Act. Further, as the initial screening and identification is completed, the Department should initiate the detailed studies necessary for the nomination and ultimate designation of stream segments as part of the system.
3. The *Fish Commission* should continue to participate in the screening of candidate streams under Pennsylvania's Wild and Scenic Rivers Act.
4. The *Historical and Museum Commission* should develop and implement a historic site survey program throughout the Commonwealth for the purposes of identifying and screening sites of statewide and local historical significance.
5. The *Historical and Museum Commission,* through the A-95 review process, should monitor the activities of other state and federal agencies to prevent the destruction of historic sites and property in the Commonwealth.
6. The *Department of Community Affairs* will continue to work with environmental advisory commissions on plans which seek to identify and classify unique natural areas.

Acquisition—State Agencies

1. The *Department of Environmental Resources* should accelerate its current acquisition efforts to obtain unique wild and scenic rivers, irreplaceable natural resources, unique ecological areas, and needed low density recreation areas as they are identified.

Because many of these areas are privately owned, they can be subject to loss or destruction at the discretion of the land owner. It is very important that these lands be inventoried and identified and that a program for protecting them is developed.

2. The *Game Commission* should continue to acquire valuable wetlands for public ownership. These areas are rare and unique and provide a habitat for a varied population of game species and wild waterfowl.

Development—State Agencies

1. The *Department of Environmental Resources* should continue to emphasize its trail system by developing loop trails, primarily on State lands and by identifying usuable rights-of-way for recreation activities.
2. The *Department of Environmental Resources* should explore effective methods of protecting natural resources on both public and private lands by means other than fee simple acquisition. The protection of resources by means such as easements, rights-of-way, zoning, purchase and leaseback, land use restrictions, and land donations, among others, will be investigated.
3. The *Game Commission* should continue a "no management" approach in maintaining unique or rare eco-system areas.

Finding #4

The responsibility to provide for bicycling needs has not been legislatively assigned to any State agency.

Bicycling, according to the Pennsylvania Recreation Study, has the highest incidence of participation of all the activities surveyed. Yet, no State agency has been mandated by the legislature to provide programs and facilities to meet the growing needs of the bicyclist.

Each State agency involved in recreation has taken steps to address bicycling needs. The Bureau of State Parks has developed special separate bike paths in several new parks, Community Affairs and PennDOT have jointly published a prototype route guide for Central Pennsylvania, DCA has assisted local governments through their grant programs with the development of local bikeways, and PennDOT has funded one

bikeway. The Department of Education is developing an extensive bike safety curriculum for elementary grades; the Pennsylvania State Police, through their educational programs, are educating drivers of their part in bike safety; and the Justice Department is specifying the legal rights of bicyclists in using streets and roads. More significantly, PennDOT has recently completed a policy document, *Bicycling in Pennsylvania: Recommended State Policies for Providing Bicycle Facilities and Programs*, which, based on a detailed analysis of bicycling needs, proposes an action program to meet those needs. However, until legal responsibility is established, the recommendations of this study cannot be implemented.

Recommendations

Legislation—Federal

1. Federal Legislation should be enacted which establishes manufacturing and import standards on bicycles.

Legislation—State

1. The Uniform Vehicle Code should be revised to clearly define the bicyclists' right to use public roads.
2. Legislation should be enacted which charges PennDOT with the responsibility to plan, design, acquire, build and maintain facilities to help meet bicyclists' needs

Planning—State Agencies

1. The *Department of Transportation* should pursue a means to implement the findings and recommendations of the Statewide Bicycle Policy Study.
2. The *Department of Transportation* should continue planning and designing bikeways in the metropolitan areas of the State as required to meet the conditions of the Clean Air Act and pursuant to the finding of the Statewide Bicycle Policy Study.
3. The *Department of Transportation* should continue to work with regional, county, and local planning agencies to provide the analytical framework for bicycle planning across the State.

Acquisition—State Agencies

1. The *Department of Transportation* should acquire bike routes as necessary to carry out the findings of the Pennsylvania Bicycle Study.

Development—State Agencies

1. The *Department of Transportation* should pave the shoulders of routes that have been identified as critical in providing adequate bicycle routes.

Finding #5

The long range costs of the maintenance and operation of recreation facilities need to be analyzed.

In the field of recreation, there has been little research that bears directly on the costs of adequate maintenance and operation as a functional corollary of capital investment.

Most government agencies allocate funds for maintenance and operation on the basis of how much was allocated the previous year or how much was allocated for a similar facility. The problem with these procedures is that they frequently result in an inadequate assessment.

If this problem is to be corrected, administrators and legislators will have to know how much it costs to operate and maintain a park or park system at peak efficiency and, alternatively, what lower levels of funding will mean in terms of service and future capital costs caused by deferred maintenance.

Recommendations

Legislation—State

1. The Legislature should authorize studies to determine the cost of the operation and maintenance of recreation facilities. Based on the results of such studies, future appropriations or bond issues for capital expenditures in recreation should include appropriate levels of funding for operation and maintenance.

Planning—State Agencies

1. The *Department of Community Affairs* should conduct a demonstration project to provide financial assistance to municipalities to conduct research on local recreation maintenance, operation, and program costs. Such a project would result in improved technical assistance to local governments in identifying local needs and estimating costs for the operation and maintenance of park and recreation facilities and programs.
2. The *Department of Environmental Resources* should continue to monitor the carrying capacities of physical resources both in parks and forests. This basic research is fundamental to the development of long term management programs for these resources.
3. The *Department of Environmental Resources* should modify the analytical techniques used in the Pennsylvania Recreation Survey for estimating and projecting recreational demand in order to get a clearer focus of the needs which Pennsylvanians have for low density recreational opportunities. This study would define and quantify need as well as gather information on the natural qualities perceived to be important to those experiences.

Management—State Agencies

1. The *Department of Environmental Resources* should establish and maintain management plans for each unit of its recreation system.

(a) It is essential that the planning, operation and maintenance of State parks result in a unified and sensitive treatment of these natural resources and their supporting physical plant.

(b) Safe and flexible facilities and programs that meet the public's current outdoor recreation and environmental education requirements are necessary. They shall be guided by a progressive management document which will be prepared for each unit in the system.

(c) Forest Resource Plans have been developed for the management of timber, water, mineral, and recreational resources on the two million acres of State forest land. These plans must be continually updated and revised as human wants and needs change.

RECREATIONAL POTENTIALS

One of the purposes of a state recreation plan should be to identify areas or sites, or kinds of areas or sites, that have an especial or unique recreation potential. The following are those that have been identified in this plan.

1. Pennsylvania law specifies criteria by which particularly scenic and undisturbed sections of rivers or streams are to be identified. Although funds for acquisition have not as yet been authorized, the benefits of this program will be immeasurable for future generations.

2. A State system of hiking, biking and horseback riding trails should be developed. The State's Wild and Scenic Rivers Act should be used as a model for legislation pertaining to this need for planning, screening, acquisition and development. Such legislation cannot be ignored for long because a trail system cannot be developed after development has severed the continuity of undisturbed tracts of land. Such a system would logically extend from the existing Appalachian and North Country Trails, but should emphasize development of loop trails across both public and private holdings.

3. The largely undeveloped, mountainous areas of the North Central Highlands should be preserved for the hunter, fisherman, camper and naturalist. This area, which still provides sanctuary for the black bear, offers an unusual recreational potential that must be used wisely. Consequently, a master plan should be developed and land use controls enacted to monitor development in this area.

4. The Pennsylvania Dutch Country of Lancaster County is an area whose daily conduct is one of the Nation's most unique cultural islands. One of the most important factors in the founding of the Nation was the guarantee of freedom of religion. The Amish, Mennonites and other plain folk in the central and south central areas of the State have rigidly abided by the precepts of their faith for over two centuries, resisting the pressures of technical, social and philosophical modernization. Their farms still flourish and have remained basically unchanged.

Predictably, their uniqueness has engendered commercialism and subdivisions which jeopardize their privacy. Here again, a master plan is needed to resolve conflicts. The issues are complicated and require careful, informed consideration.

5. The car has been the major means of transportation up to now. However, since fuel shortages are a more than likely possibility in the future, systems of mass transit for conveying groups to recreation areas cannot be ignored in conceptualized future participation patterns. Studies in this area might be based on the experience of the Lehigh-Northampton areas and Southeastern Pennsylvania Transit Authority where public mass transit is already utilized for recreation outings.

One of the significant findings of the needs analysis is that the lack of transportation is one of the most acute impediments to recreation participation. This is particularly applicable to the needs of the elderly, handicapped, poor and center city residents. Some system of incentives to private and public bus service must be specified. Local government programming should focus on this potential and any State assistance program should also be cognizant of this possibility.

6. The Pittsburgh area, with its surrounding coal deposits, has been the major steel producer in the country. This has not been accomplished without a price to the environment. Mine acid drainage and industrial waste have made Dead Seas of more miles of streams and rivers than any industrialist should care to account for.

However, the Monongahela River, which flows north to Pittsburgh, is being salvaged and is a recreational potential that must be put to good advantage. The industrial communities that line its banks are beginning to recognize these potentials and, in the upriver sections, swimming and water-skiing are already possible. Fish are also returning as the pollution is abated. Actual fish counts at Corps of Engineers' locks have demonstrated that large and small mouth bass are returning to the Monongahela. Other clean water species are also beginning to prosper. Because the river is deep and wide, it offers an excellent resource for boating.

In recent years the river has begun to accommodate

significant recreation use. However, the revitalization is far from being accomplished. Therefore, this plan recommends a comprehensive recreation study of the potentials of this irreplaceable resource.

LEGAL AUTHORITY FOR DEVELOPMENT OF PENNSYLVANIA'S RECREATION PLAN

The Office of State Planning and Development was established by the Governor on November 11, 1971, stemming from and replacing the State Planning Board. On August 3, 1972, Executive Directive No. 46 designated OSPD as the official planning agency of the Commonwealth with the authority to receive and expend federal funds.

Planning Code (Act No. 485, Sec. 3, P.L. 1608 amended, 1949) which describes the responsibility of the State Planning Board includes, among others, the following:

> Conduct and stimulate research and to collect, compile, and analyze data bearing upon all industrial, commercial, social and physical factors which may influence the present and future welfare of the State, including industrial and agricultural productivity, resources of soil, minerals, water and forest products, population growth, employment, income, transportation, housing, recreational facilities...and other fields vital to the public welfare.
>
> Prepare and, from time to time, perfect plans or programs for the physical and economic development of the State by the State, its agencies and political subdivisions.
>
> Advise with the various State departments and bureaus and with local authorities and individuals with a view to the coordination of all physical and economic development plans including plans for highway, airway and air terminals, parkways, water supply development, flood control, land use, recreation areas, and forest reservations and such other things as are related to an ordered and comprehensive development of the State by the State, its agencies and political subdivisions.
>
> Prepare, amend and keep up-to-date a long-term development program of all major State improvement projects...
>
> Collect, analyze and publish information relating to the proper economic and physical development of the State and the conservation of its natural resources and make such recommendations thereon to the Governor as it may deem proper and advisable.

The passage of the Federal Land and Water Conservation Fund Act in 1964 (P.L. 88-578; 78 Stat. 897) made funds available to the State for the "planning, acquisition and development of needed land and water areas and facilities." The law also required a comprehensive statewide outdoor recreation plan "prior to the consideration by the Secretary of Financial Assistance for acquisition or development projects." On May 25, 1971, the Governor designated three State officials to work with and coordinate the role of the Federal Land and Water Conservation Fund Act in meeting recreational needs in Pennsylvania. The Secretary of Community Affairs was designated liaison officer for local projects, the Secretary of Environmental Resources for State agencies and the Executive Director of the State Planning Board for maintaining the Statewide Comprehensive Outdoor Recreation Plan.

COORDINATION

"Pennsylvania's Recreation Plan" is a product of the Commonwealth's recreation planning process. The process exists to coordinate the recreational activities of State agencies directly involved in the provision of recreation opportunities. The recreation planning process includes the formulation of policy, review and comment of proposed actions, citizen participation and report publication.

Although the Office of State Planning and Development is charged with the lead agency role in this planning process, much of the substantive work and review is a function of *The Interagency Recreation Planning Committee* whose job it is to monitor and guide recreation planning in Pennsylvania.

Membership on the Interagency Recreation Planning Committee is limited to the Secretary or chief administrator or designee of the following State governmental agencies:

a. The Department of Community Affairs
b. The Department of Environmental Resources
c. The Department of Education
d. The Department of Public Welfare
e. The Department of Transportation

f. The Fish Commission
g. The Game Commission
h. The Historical and Museum Commission
i. The Office of State Planning and Development

The members of this committee met in August 1973 and have met continuously since that time for the purpose of coordinating the development of this plan. The committee will continue to function as a part of Pennsylvania's continuing planning process.

In addition to interagency coordination, the development of this plan was accomplished, in part, through the work of county and regional planning agencies. Through the development of "Issues Statements", county and regional planning agencies participated directly in the formulation of Commonwealth recreation policy. Information pertaining to regional recreation needs was also gathered by county and regional planning agencies and has had a direct impact on the needs findings of this plan.

Finally, wide scale citizen involvement and participation in the plan formulation was facilitated through the county and regional planning agencies. A minimum of two meetings were held by each of the regional planning agencies for the purposes of (a) providing broad public exposure to the plan concepts and (b) ascertaining public opinion on important recreational issues.

Citizen participation, as well as the expression of regional needs, was done through the following county and regional planning agencies, each of which prepared a separate report identifying its concerns and findings.

Uniform Regions

1. The Delaware Valley Regional Planning Commission
2. The Lehigh-Northampton Joint Planning Commission
3. The Economic Development Council of Northeastern Pennsylvania
4. The Northern Tier Regional Planning Commission
5. The Susquehanna Economic Development Association
6. At the time this work was done the Capitol Region Planning and Development Agency had not been established. Consequently, the work was accomplished by each of the separate county planning agencies. The inter-county cooperation and coordination on this project was laudable. Counties which were involved include Adams, Cumberland, Dauphin, Lancaster, Lebanon, Perry, Franklin, and York.
7. The Southern Alleghenies Planning and Development Commission
8. The North Central Pennsylvania Regional Planning and Development Commission
9. The Northwest Pennsylvania Regional Planning and Development Commission
10. The Southwestern Pennsylvania Regional Planning Commission.

Throughout the preparation of this plan, coordination and cooperation has been maintained between the Commonwealth and Federal agencies through the efforts of the Northeastern Regional Office of the Bureau of Outdoor Recreation. Northeast BOR dedicated its 1974 state plan's meeting to the subject of "Federal Agency Coordination", in part, to help Pennsylvania in this respect.

Agency Management Plans

The preparation of this plan draws on work which was done by individual State agencies during the development of their respective agency management plans. Individual agency management plans were completed as a part of the Commonwealth's 1971 *Statewide Comprehensive Outdoor Recreation Plan*. These supplemental planning documents are considered to be an organic part of the state planning process.

Coordination of the plan with the many other planning efforts which occurred simultaneously had been a problem, but special efforts were expended to accomplish that end. The overlapping membership among individuals on the Interagency Recreation Planning Committee and the steering body of other plans greatly facilitated plan coordination. The specific plans which have influenced the preparation of this plan include:

a. Pennsylvania's Investment Plan
b. A Land Policy Program for Pennsylvania
c. Pennsylvania's Environmental Master Plan
d. Pennsylvania's Comprehensive Water Management Plan
e. Bicycling in Pennsylvania

Special Related Plans

As an integral part of Pennsylvania recreation, open space and land use planning efforts, the Western Pennsylvania Conservancy, on behalf of the Office of State Planning and Development undertook a special planning project which resulted in the publication of *A Land Use Strategy for Pennsylvania*. Staff planners from the Office of State Planning and Development and from the Western Pennsylvania Conservancy worked together in the preparation of this policy statement and, through constant dialogue, the recreation planners responsible for this plan examined and shared findings with the Western Pennsylvania Conservancy. It is on the basis of the findings from that study that several of the planning recommendations in this plan are being made.

SUMMARY OF PLAN ELEMENTS

In a general way, *Pennsylvania's Recreation Plan* seeks to bring together the independent activities of nine agencies of State government, but primarily and most importantly the plan seeks to ascertain how well Pennsylvania's recreational needs are being met. Equipped with an understanding of what needs Pennsylvanians have, the plan then develops recommendations and proposals to meet those needs and an action plan by which some of the identified needs may be met.

Selected elements and methods contained in the plan are as follows:

A. *Recreational Demand*—Estimates and projections of participation by Pennsylvanians in 19 specific recreational activities have been made for 1974, 1980, 1985 and 1990. The estimates were made on the basis of a sample telephone survey conducted during the summer of 1974. Projections were based on an analysis of participation and demographic factors. Projections also reflect the effect that increases in supply would have on participation rates. Participation rates reflect not only current percentages but also increases resulting from participation by interested nonparticipants. The demand projections are presented as a series of alternative levels of participation reflecting increases in opportunity to participate in any particular activity.

B. *Recreational Supply*—An inventory of existing areas and facilities has generally been one of the most expensive and least justifiable elements in a recreation plan. It is hoped that the administrative efforts and analytical techniques employed to accomplish a census of areas and facilities in this plan will obviate the need to conduct such inventories in the future. Essentially, Pennsylvania has developed a computerized file of specific site information including: *all* sites owned and administered by State government, *most* sites owned and administered by governmental entities below the state level, *all* federally owned and administered recreation sites, *most* private profit and non-profit out-of-doors oriented recreation sites, and *some* information about recreation opportunities available at local school sites. The Commonwealth has devised a long term process of updating and adding information to the file as it becomes available. This will be accomplished for local areas and facilities by requiring local governments to use a uniform survey format in inventorying any recreation area. Private areas and facilities will be inventoried by regional planning agencies using the uniform survey format. In the near future, the Pennsylvania Department of Education will be undertaking a survey of both indoor and outdoor facilities available at school sites. Accurate information on recreation areas and facilities owned and managed by State and Federal agencies has traditionally been readily available and accurate.

C. *Needs*—Logically, all planning must extend from an understanding of needs. Traditionally, the determination of needs has relied heavily on the use of standards. In this plan, however, four separate techniques were employed to determine recreational needs. These four approaches are valuable because the various activities and many suppliers do not lend themselves to analysis through a single, common method.

1. The first section of this chapter analyzes facility needs at the statewide level. The analysis is based on the findings of the demand projections, other pertinent information produced by the demand survey and the inventory of existing supply. This section is one of the major highlights of the plan.

2. In designing the work elements of this plan, it was assumed that major differences existed in regional needs. Consequently, a regional needs survey was conducted. While the opinions of 4,900 respondents across the State did not support the assumption that each region has peculiar needs, they did substantiate the value of a multilateral approach in planning.

3. At the beginning of this chapter, it was pointed out that three-quarters of recreational activity takes place close-to-home in a few hours of leisure time. The third approach of this chapter focuses on these kinds of recreational needs and their implications in defining the roles and responsibilities of local government.

4. Another assumption that was made at the outset of this project was that the recreational needs of the handicapped have been neglected. A special survey proved that this assumption was correct. This section addresses these problems.

D. *Commonwealth Recreation Policy*—Policy statements set the parameters of what the State, local and, to some extent, Federal Government should and should not do. While there are obvious needs that are clearly a government responsibility, there are other needs, the satisfaction of which must result from a commitment of all sectors. Finally, there are needs that are clearly not the responsibility of any level of government. These policy statements set the margins within which the recommendations and implementations of this plan must function. The policy statements were developed by the Interagency Recreation Planning Committee as a result of the public evaluation of "Issues Statements" which the regional planning agencies submitted to citizens at public meetings.

E. *Recommendations*—The recommendations and the identification of recreation potentials are the prod-

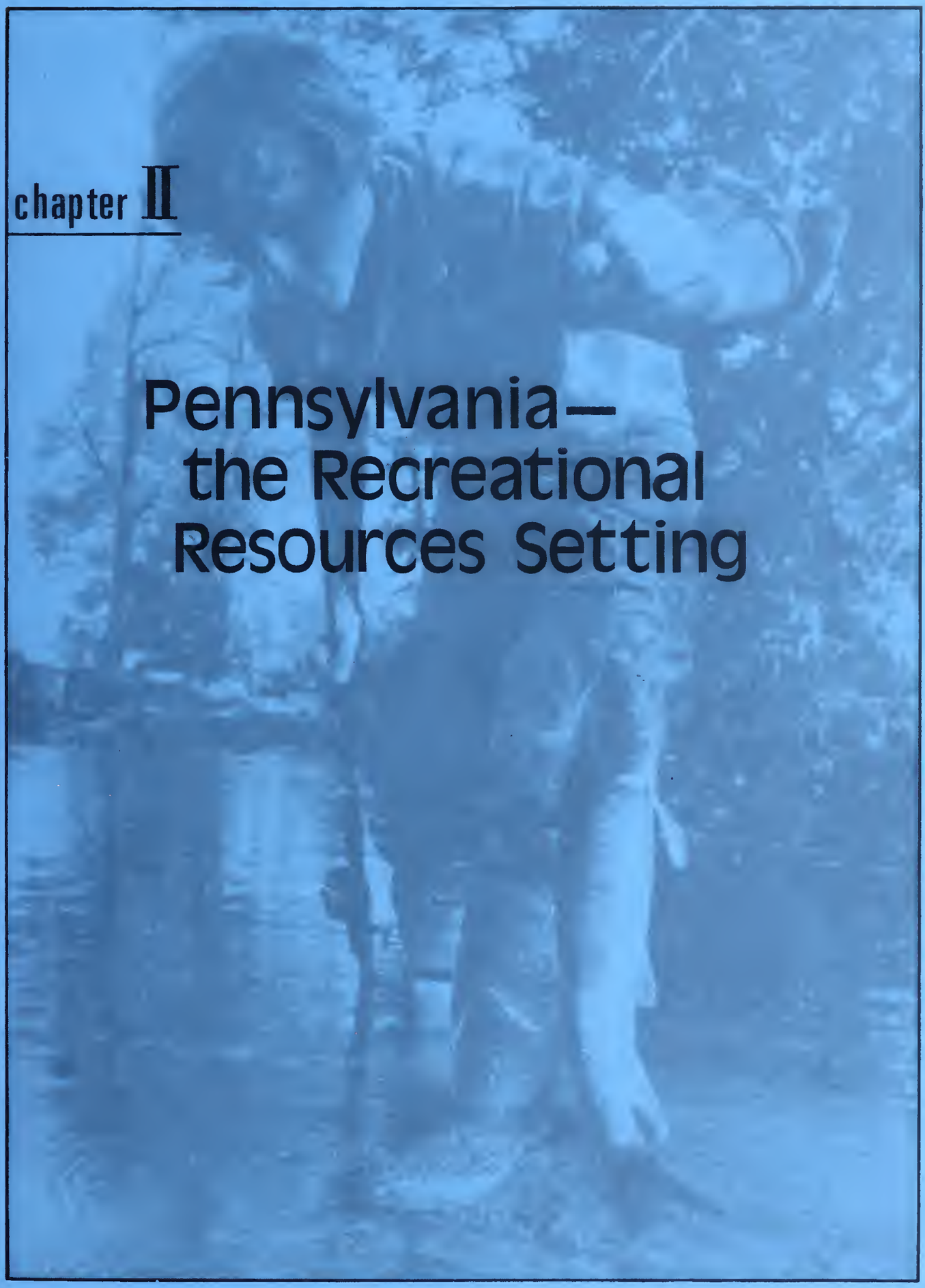
uct of all of the agencies that participated in the Interagency Recreation Planning Committee. Recommendations are presented for each State agency, the Federal Government, local government, and private enterprise and have been developed through careful consideration of the findings of the needs analysis.

F. *Implementation*—The implementation portion of the plan is drawn from several sources including the five-year capital programs of the agencies involved in providing recreation opportunities. In this chapter, correlations are made on how agency programs cohesively meet the needs identified in the plan. In addition, listings are made of all Federal project proposals so that their relationship to the plan or projects can be taken into account. Legislation which is important to implementing the recommendations is also presented as well as Pennsylvania's Recreation Planning Process, a five-year planning program.

At the present time, the following methods are employed in meeting identified recreational needs in Pennsylvania.

1. The direct provision of recreation opportunities by State agencies. This includes direct Commonwealth ownership, development and operation of programs, such as State parks.
2. Cooperation with the Federal and local levels of government in planning recreational facilities. An example might be helping the Forest Service establish acquisition priorities.
3. The provision of technical and financial assistance in order to improve recreation opportunities at the community level.
4. Encouraging and stimulating the development and use of private recreation areas and facilities.

Although questions such as the conservation of resources, adequacy of open space, use of flood plains and the necessity of land use controls are not the major focus of the recreation plan, it has not been possible to develop this plan without giving consideration to them.



chapter II

Pennsylvania— the Recreational Resources Setting

Chapter II

PENNSYLVANIA—THE RECREATIONAL RESOURCES SETTING

The richness and variety of Pennsylvania's resources have been the nucleus of the State's historical economic growth and national prominence. In the mid-1970's, they serve the State's population well as it plans new recreational facilities to accommodate leisure-time pursuits which, in themselves, are products largely of the State's economic viability. In the main, the population is literate, mobile and gainfully employed. It seeks new forms of recreational development and expansion of existing facilities to satisfy aesthetic experiences as well as the more traditional forms of relaxation. The State's physiographic and climatic characteristics, "keystone" location, cultural and economic history, and commitment to comprehensive planning constitute a priceless resource base for designing a recreation plan which will fulfill the anticipations of its citizens and visitors. The most basic of these elements is the locational factor.

LOCATION

Pennsylvania today retains much of the "keystone" characterization of colonial days—a central location. Southeastern Pennsylvania is in the geographical center of the world's most extensive urbanized area, styled by the French geographer, Gottmann, as a MEGALOPOLIS. The East Coast Megalopolis extends from coastal New Hampshire to the Lower Chesapeake Bay (Map 1). Pennsylvania is also tied on the west to the emerging Great Lakes Megalopolis. These extended metropolitan areas are the most productive areas of the world and the greatest markets for recreational facilities.

Herein also lies a network of transportation—rail, air, highway and water (canal, river, ocean)—in which Pennsylvania remains a key link. The combination of population, mobility and accessibility must be considered a prime factor in the State's recreational design.

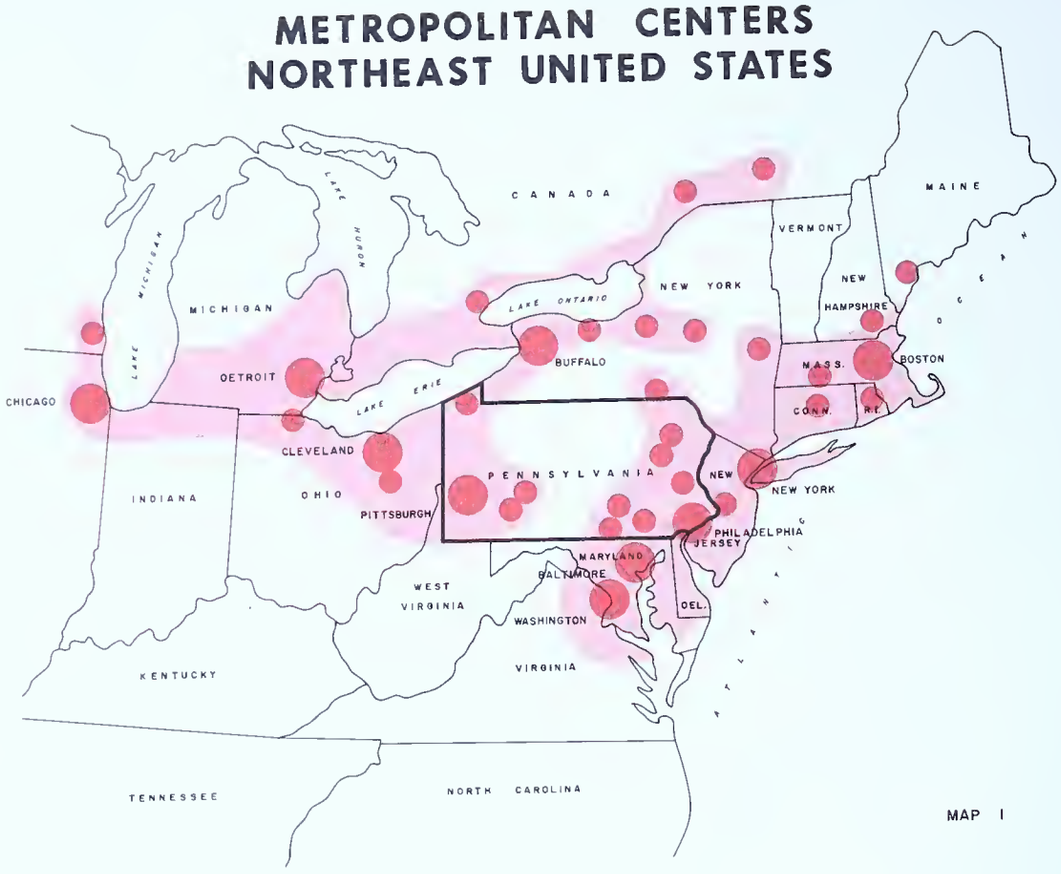
Pennsylvania also has a "keystone" position in the physiographical pattern of the Eastern United States. It is bisected by the Appalachian Mountain Chain (Map 2) and shares prominently its major divisions of mountains, plateaus, piedmont and great valleys. The variety of landforms and drainage, soils and minerals and plant and animal life characteristic of this mountain system enriches Pennsylvania's recreational resources base immeasurably. The Appalachian mass is complemented in the southeast by a section of tidewater and associated coastal plain and in the northwest by the lake plain of Lake Erie which gives way to the Great Lakes System.

The variety of weather which Pennsylvania exhibits is related to the State's location. It shares with the Eastern United States the continental climate of the mid-latitudes with the progression of moisture-bearing cyclones and fair weather anti-cyclones. Unfortunately, Pennsylvania lies astride the main track of North American hurricanes (Map 3) and has been ravaged frequently by these disturbances, particularly in the eastern third of the State.

Culturally, the Commonwealth has long been identified as one of the three primary "hearthlands" of Colonial America: New England, Philadelphia, and Tidewater Virginia. The Pennsylvania Culture Region (Map 4), enriched greatly by many ethnic groups, was truly a "keystone" of early America. As the nation expanded, so did the influence of this cultural region. Today, we seek to preserve its artifacts and to restore, for aesthetic and educational purposes, something of the cultural spirit of this hearthland. Available to us in this process is a wealth of architectural, institutional, and social form.

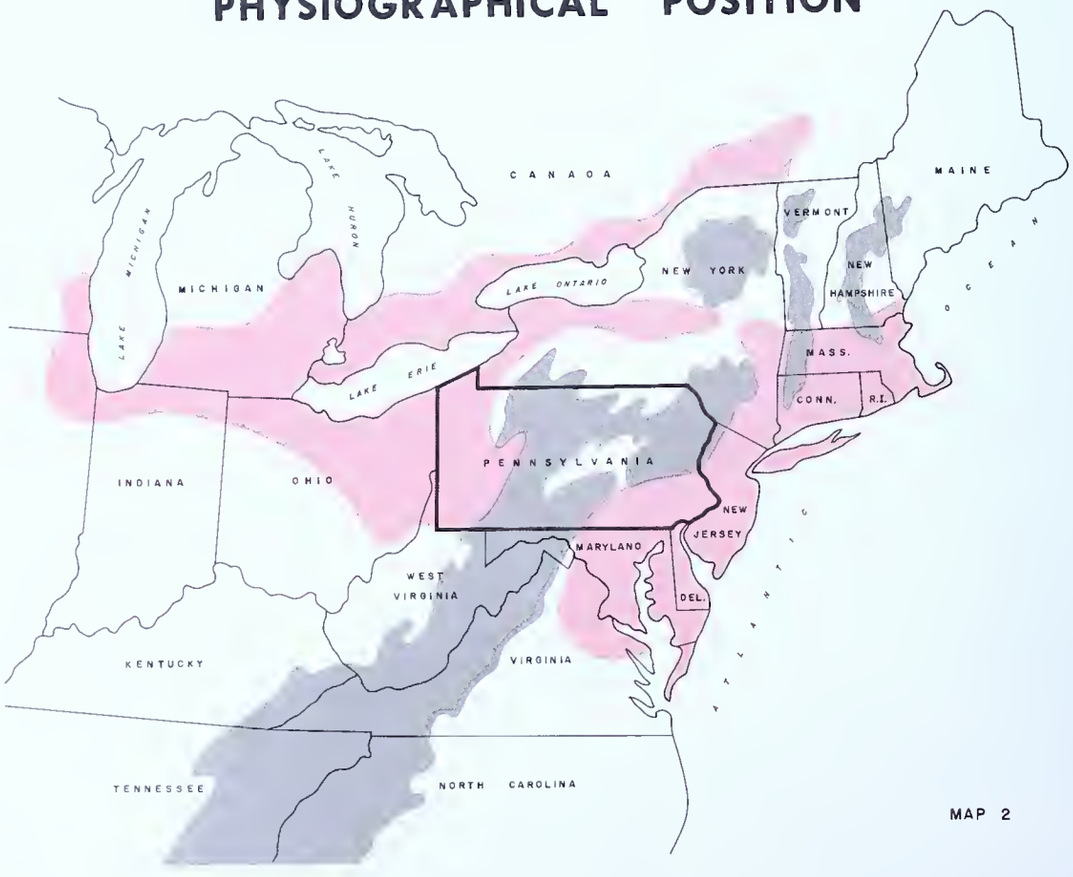
These locational elements provide some of the basic components of the Commonwealth's recreational resources setting. A statewide comprehensive recreation plan is designed to serve as a tool to effectively utilize these components and resources in the quest for a quality environment.

METROPOLITAN CENTERS NORTHEAST UNITED STATES



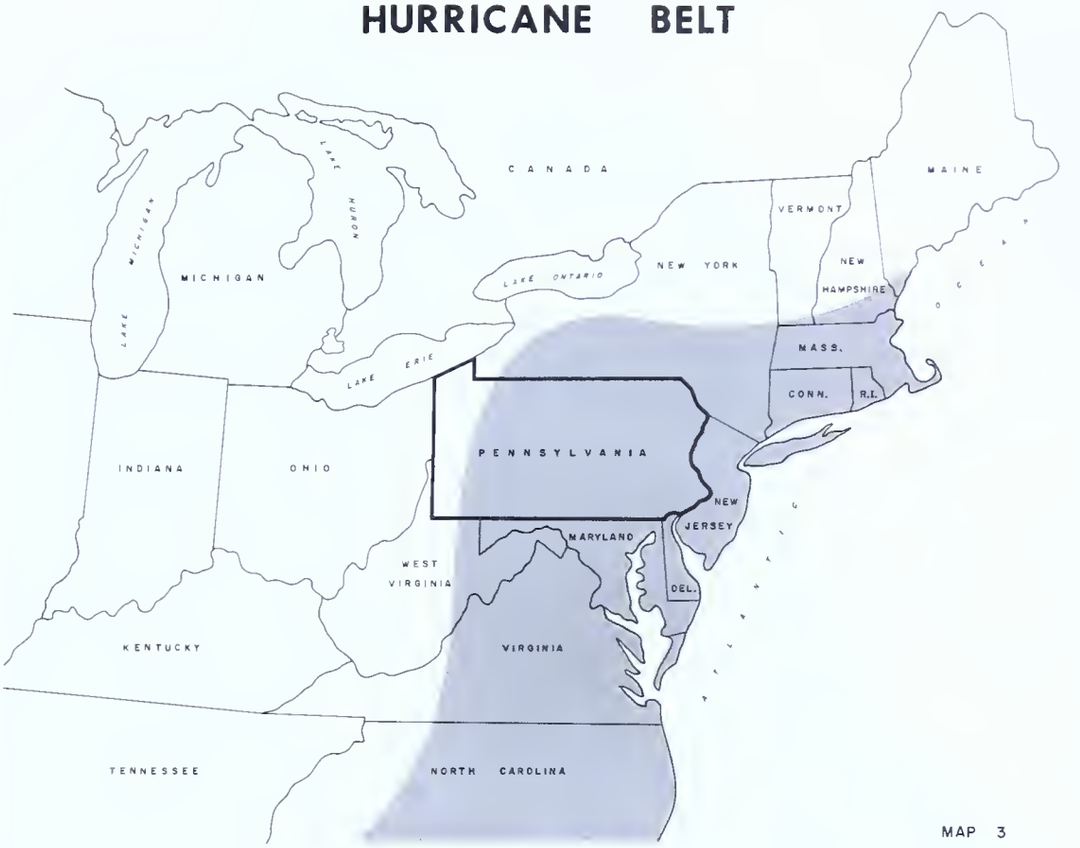
MAP 1

PHYSIOGRAPHICAL POSITION



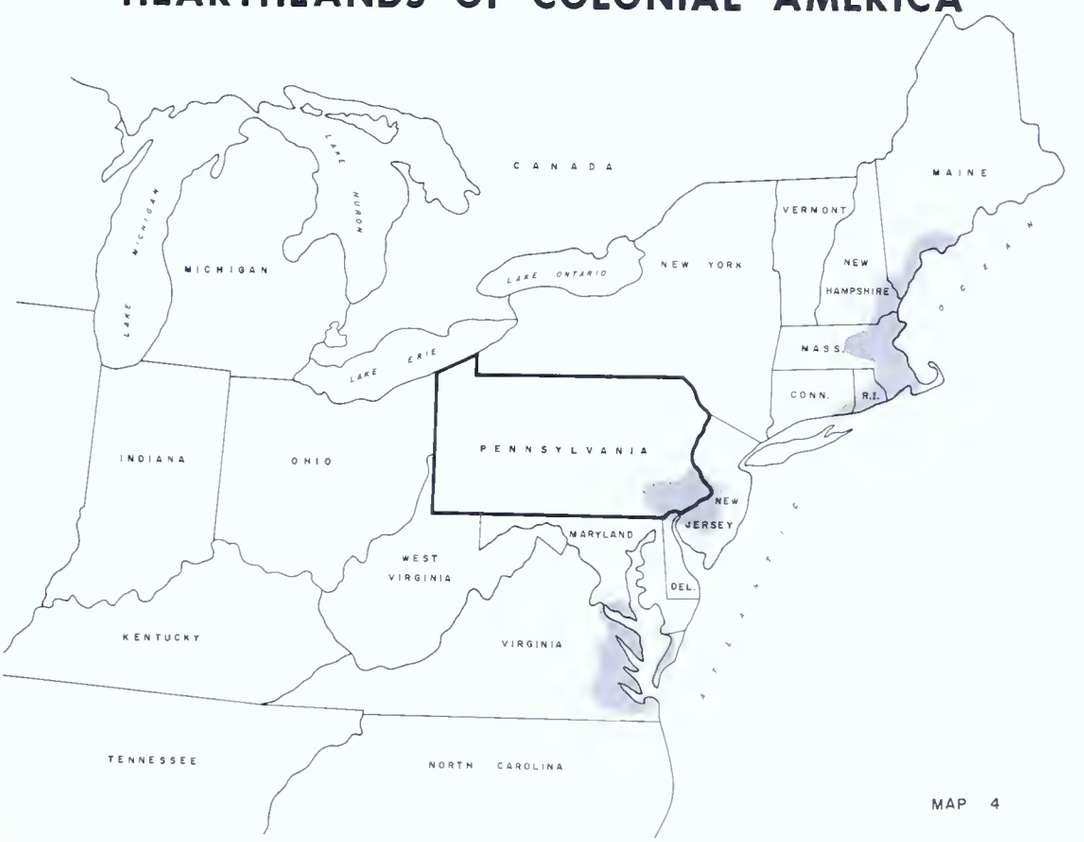
MAP 2

HURRICANE BELT



MAP 3

HEARTHLANDS OF COLONIAL AMERICA



MAP 4

PHYSIOGRAPHY

The most outstanding physical feature of Pennsylvania is the Appalachian Mountain Chain which forms a fifty-mile wide arc of ridges and valleys extending cutlass-shaped across the center of the State from the southern border to the northeastern corner. However, the general topography of Pennsylvania is best described in the sections northwest and southeast of this arc. On the northwestern side of the Appalachians lies the Allegheny Plateau which covers about one-half of the State. To the southeast of the Appalachians are fertile and hilly lowlands, the Great Valley Section and the Piedmont Province, which descend in green and brown tessellations of forest and farmland to a narrow coastal plain at the port of Philadelphia on the Delaware River, 88 miles from the sea. (Map 5).

Altitudes range from slightly above sea level at Philadelphia to 3,213 feet at the summit of Mt. Davis in Somerset County. Pennsylvania's terrain is strikingly varied; its stream-cut plateaus, rolling hillsides and rugged mountains make it one of the most scenic states in the east.

In the southeast corner of the State, a narrow lowland fifty miles long and ten miles wide fringes the Delaware River and Bay. This is Pennsylvania's segment of the Atlantic Coastal Plain.

Beyond the Coastal Plain and extending to the Great Valley is the Piedmont Province, characterized by low undulating hills, shallow fertile valleys and well-drained soils. The Piedmont, which is generally below 500 feet in elevation, is delineated in the west at Pennsylvania's southern border by a part of the Blue Ridge Mountains, South Mountain, which rises to over 1500 feet in elevation, and in the north by the Reading Prong, another upland mass of the Blue Ridge with heights reaching 600 feet.

A narrow lowland, the Great Valley, cuts diagonally across the southeast sector of the Commonwealth to the west of the Piedmont, South Mountain and the Reading Prong. This valley, which extends the entire length of the Appalachian Mountain Chain from Alabama to New York, is lower than the Piedmont uplands to the east and marks the eastern edge of the Ridge and Valley Province in central Pennsylvania.

To the north and west of the Great Valley the linear ridges of the Appalachians rise 500 to 1000 feet above the valley floors. The ridges are higher and the valleys broader in the south-central part of the State, south of the Juniata River, than they are in the north where parallel structure is tighter and the ridges closer together. At the north end of the Ridge and Valley Province the regular ridges are broken up and the terrain is generally composed of formations of irregular mountain masses.

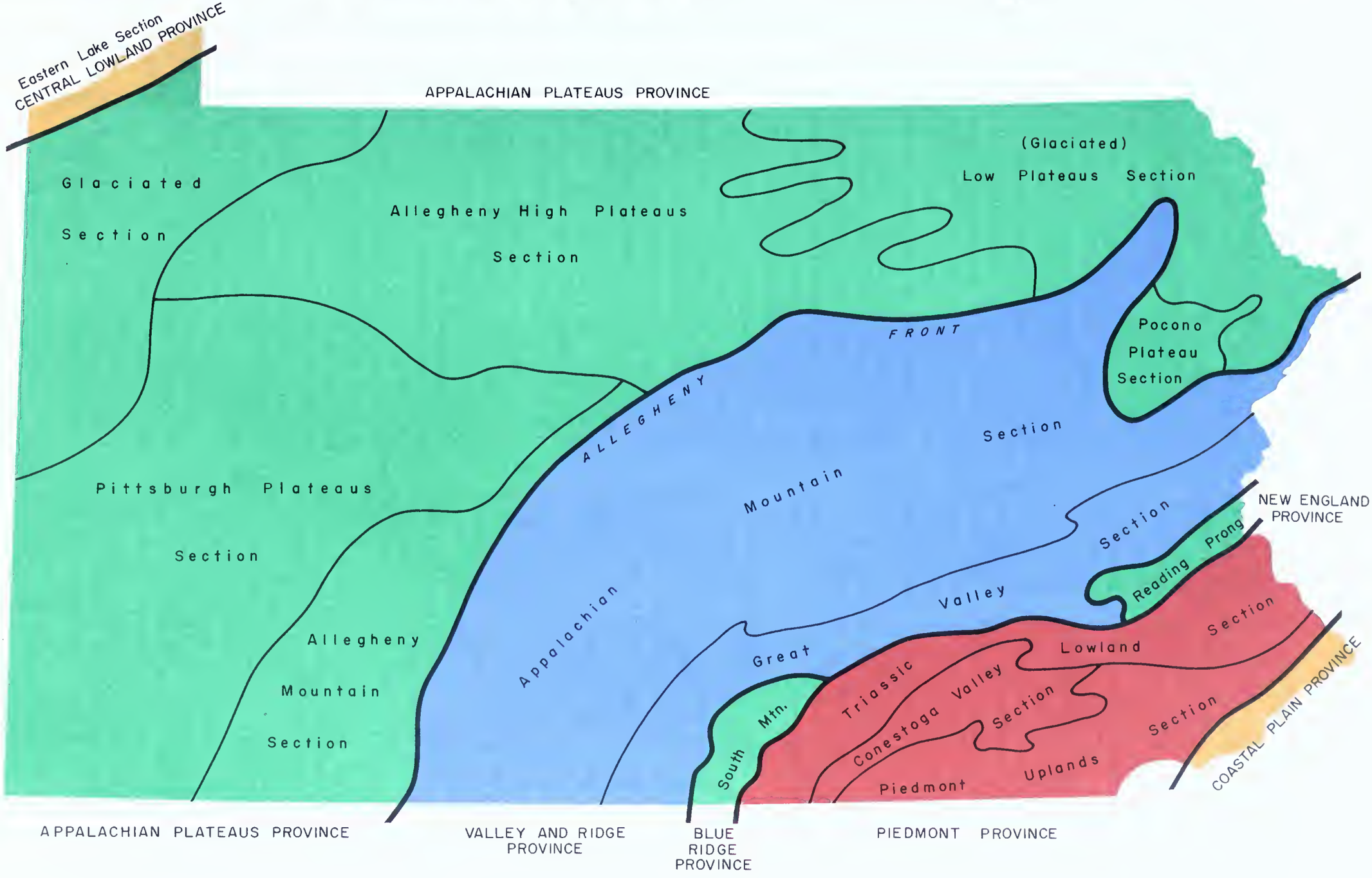
West of the southern portion of Pennsylvania's Ridge and Valley Province lies the eastern edge of the Commonwealth's western plateau area. This edge is the Allegheny Front, a steep east-facing scarp of rugged terrain and imposing topography. Associated with the front are two parallel anticlinal folds, Laurel Hill and Chestnut Ridge. Behind the front, as viewed from the east, lies the westward sloping Allegheny Plateau, the eastern portion of which is higher and is characterized by the rugged Allegheny Mountains. Within this eastern portion, elevations rise generally to 2,500 feet and the State's summit, Mt. Davis, in Chestnut Ridge, measures 3,213 feet.

The western plateau area, with the exception of the lowland Lake Erie Plain of silt and sand, is characterized by horizontal rock strata, high flat-topped hills and deep, steep-sided, irregularly patterned river and stream valleys, The Pittsburgh Plateau in the southwest rises to 1200-1500 feet, considerably lower than the Alleghenies to the east. Streams vividly pattern this plateau land, flowing frequently at half the elevation of the surrounding plateau.

Toward the northwest, to the Erie Plain, glaciation produced a rounded topography of broad valleys with scattered lakes and marshlands. Glaciation in the northeast corner of Pennsylvania produced similar highland forms, including lakes and swampland. The Pocono Plateau, south of the northeast glaciated plateau, is generally high, hilly lakeland veined with mountain streams and scenic waterfalls.

Between the glacier-sculpted northeast and northwest, rugged, peaked plateau land 2,000-2,500 feet in elevation, distinguishes the Allegheny High Plateau. Here narrow valley floors wind 500 feet below the general plateau surface. A notable example of this feature is the Grand Canyon of Pennsylvania on Pine Creek in Tioga County. This physiographic feature is a significant tourist attraction and has been nominated for inclusion in the National Wild and Scenic Rivers System.

PHYSIOGRAPHIC PROVINCES



MAP 5

HYDROGRAPHY

Pennsylvania's three principal river systems have shaped the growth of industry and the evolution of urban centers in the State. By the mid-nineteenth century, canals lined all major tributaries to the principal river systems. The extensive canal construction, good natural highways, and railroad track beds along river valleys led to the State's early-thriving lumber and coal industries. These three river systems are the Delaware, the Susquehanna, and the Allegheny and Monongahela sub-basins. (Map 6).

The Delaware River is the eastern boundary of Pennsylvania and, with its tributaries, drains the eastern fifth of the Commonwealth. The northern portion of the Delaware, which flows through the sparsely-populated Pocono Region, has not played as significant a role in urban and industrial development as have the inland river systems. Although the Delaware provides a direct route to Philadelphia, the Poconos have not provided either farm products or mineral wealth. Consequently, the Delaware has not served as a major transportation route and is not dotted with urban centers.

The two principal tributaries of the Delaware are the Lehigh and the Schuylkill. The Lehigh and its associated canals provided a vital link between Philadelphia and the Anthracite Coal Region. The Great Valley urban centers of Allentown, Bethlehem and Easton owe their prosperity, to a large extent, to the Lehigh Valley transportation route. In 1825, the Schuylkill River and Schuylkill Canal connected Pottsville and Reading with Philadelphia. The Lehigh and Schuylkill Rivers became important inland routes which were capitalized on in the nineteenth century.

The second principal river system is made up of the Susquehanna and its main tributary, the West Branch. This system drains most of central and northern Pennsylvania and flows into the Chesapeake Bay. Approximately 21,000 square miles of the Susquehanna Basin are in Pennsylvania. This basin, extending from the northern tier counties on the New York border to the Potomac Watershed in the south, encompasses several physiographic regions and drains over 47 percent of the Commonwealth's area. Beginning in Otsego County in New York, the Susquehanna dips briefly into Susquehanna County in Pennsylvania, then turns north back into New York State before its final reentry into Pennsylvania in Bradford County. It flows to the southeast through the Allegheny Plateau and the Ridge and Valley Province to the Appalachian Mountains at Pittston where it is joined by the Lackawanna River, which drains most of the far northeastern area of the State. From Pittston, it moves southwesterly through the Wyoming Valley to Sunbury where it is joined by the 228-mile long West Branch, which rises in the Appalachian country of northern Indiana County.

From Sunbury, the Susquehanna flows south to be joined above Harrisburg by the Juniata River flowing from the west. Below this confluence it cuts through the Ridge and Valley Province in a series of imposing narrow "water gaps" and beyond Blue Mountain, near Harrisburg, emerges into a mile-wide belt that marks its final southwesterly course to the Chesapeake Bay. The Susquehanna River is the second largest river entering the Atlantic Ocean from the United States.

The patterns of community development in the Upper Susquehanna counties of Centre, Clinton and Lycoming can be traced directly to the opportunities the Susquehanna presented as a transportation route. In the latter half of the nineteenth century, Williamsport was a major national lumber-producing area, floating its cut timber on the West Branch to saw mills. Avid nineteenth century canal building improved the shallow Susquehanna River trade route influencing the evolution of the lumber and fur trading communities of Lock Haven and Bellefonte beyond Williamsport.

Similar development of urban centers along the Juniata River was stimulated by the Pennsylvania Canal connecting Harrisburg with Hollidaysburg and points west along this principal waterway.

Drainage of western Pennsylvania is generally via the Allegheny and Monongahela Rivers which merge at Pittsburgh's Golden Triangle to form the Ohio River. This system flows eventually into the Gulf of Mexico. It drains 15,000 square miles of western Pennsylvania, approximately one-third of the State.

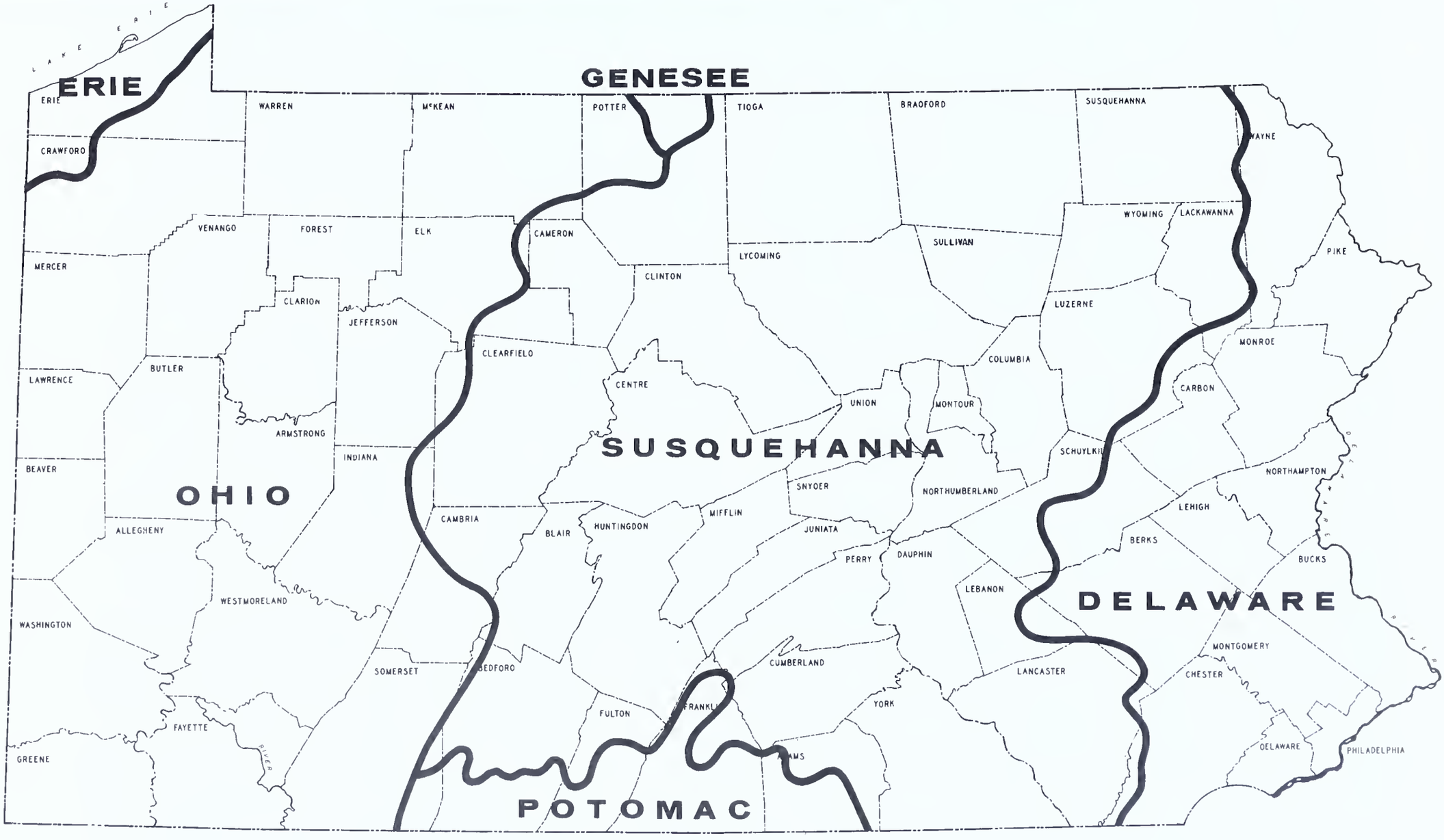
The Allegheny rises in Potter County and turns northward into New York State before flowing southwest in a deep, V-shaped bed through the Appalachian Plateau to Pittsburgh. There it joins the Monongahela, which flows northward from West Virginia, to form the Ohio River. About 25 miles downstream from Pittsburgh, the Ohio is joined by the Beaver River, which drains a 3,000 square mile area of eastern Ohio and northwestern Pennsylvania.

The locations of urban centers in the Northwest Region of Pennsylvania were determined by the tributaries of the Allegheny River. By the 1830's, canals had opened the Northwest to trade and a vital connection was established later between Erie and Pittsburgh.

Toward the center of the State, the lumber industry in the Northwoods Region used the Allegheny to transport timber to Pittsburgh and the Susquehanna to Harrisburg and the Southeast.

The encompassing reach of Pennsylvania's natural waterways and early, extensive canal development

PENNSYLVANIA DRAINAGE BASINS



MAP 6

served the State immeasurably during the nineteenth century in the formative period of its urban and industrial development. Unfortunately, widespread and inexpensive transportation throughout a land rich in timber, coal, oil, iron and various minerals seems to breed shortsightedness. Immediate gain may mask an economic and a social cost levied upon subsequent generations. Pollution of Pennsylvania's waterways is a cost we are now paying because of earlier shortsightedness.

CLIMATE

Pennsylvania's climate is a product of two contrasting, but interacting, weather-producing forces—the general air circulation of the prevailing southwesterly winds over a continental land mass and a modifying clockwise air circulation about the Atlantic subtropical high pressure system which directs maritime air masses northward along the eastern coast of the United States and Canada. The result is a humid continental type of climate, modified significantly in the eastern third of Pennsylvania by Atlantic disturbances.

Continental climatic characteristics are identifiable in the regimen of heat and moisture throughout the Commonwealth. There is an extended period of subfreezing temperatures coinciding with the low sun months with lowest temperatures and their duration decreasing in general from north and west to southeast. Average readings throughout the State for the coldest month, January, (Map 7) range from 23.4°F. in the Upper Susquehanna area to 30.8°F. in the Southeastern Piedmont.[1] Similarly, there is an extended period, during the high sun months, of warm temperatures. Again, the Upper Susquehanna is the coolest area in July (Map 8) with an average monthly temperature of 68.8°F. and the Southeastern Piedmont is the warmest averaging 75.3°F. In the main, the Commonwealth's pattern of temperature readings reflects the climatic factors of latitude and altitude. Modifications are accounted for by the northward passage of maritime air masses. These effects are particularly significant eastward of the Appalachian Mountain Chain.

Between the low sun and high sun months are transitional periods styled "spring" and "fall or autumn", another characteristic of our continental-type climate. They are important climatic seasons in the perception of recreational potentials, particularly so for "autumn".

The pattern of precipitation distinguishes more clearly the significance of the maritime influence throughout the Commonwealth (Map 9). The range of average annual precipitation is of a rather small order: 37.08 inches for the Upper Susquehanna area to 43.85 inches for the East Central Mountains. And for all geographic areas of Pennsylvania, July is the wettest month and January-February the driest. This harmonizes with the pattern projected for a continental-type climate.

It is with the precipitation extremes that one identifies best the maritime influence. Extended dry periods are not unusual in Pennsylvania, although severe, desiccating drought is not a hazard. Extended periods of heavy precipitation are likewise common in the State, particularly in the eastern third. For the period from 1941 to 1970, totals for the wettest months show:

			rainfall
The Poconos	August	1955	16.10″
East Central Mountains	August	1955	13.03″
Southeastern Piedmont	August	1955	12.54″
Lower Susquehanna	August	1955	9.94″
Middle Susquehanna	August	1955	10.53″
Upper Susquehanna	May	1946	9.00″
Central Mountains	May	1953	9.16″
South Central Mountains	July	1949	7.74″
Southwest Plateau	October	1954	8.36″
Northwest Plateau	October	1954	8.91″

SOURCE: *op. cit.*

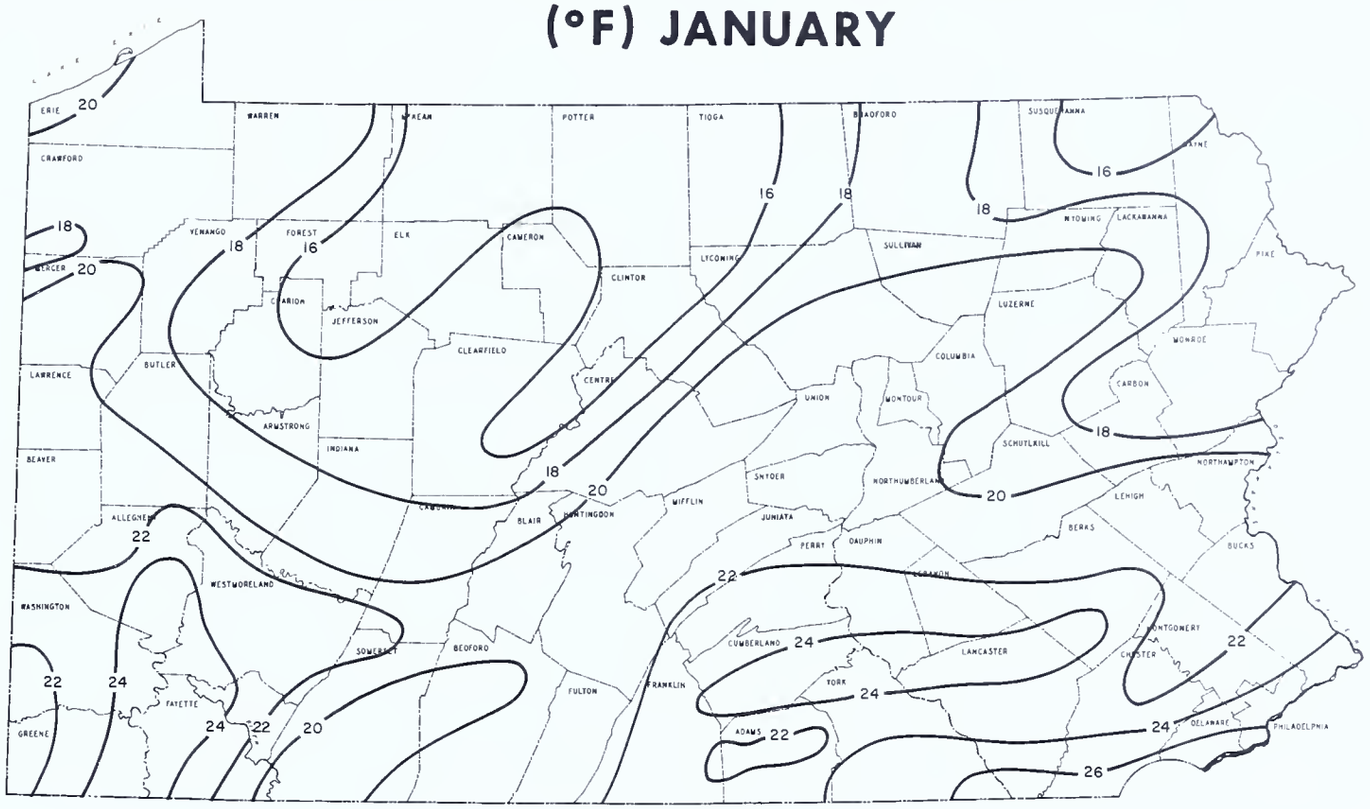
(These figures will have to be modified to accommodate the months of June 1972 and September 1975 when new records were set for the entire Susquehanna Valley. For example, Harrisburg recorded a total of 18.55″ in June 1972 and 14.97″ in September 1975.)

In only one area above was the wettest month of record the same as the month of the average highest precipitation, July. The vagaries of tropical storm development in the Atlantic and subsequent landward movement produce a "watch" period of several months during which Pennsylvania may be subjected to a sequence of mid-latitude cyclones and extra-tropical disturbances. The results are traumatic and of the highest relevancy to viable recreational planning. This is particularly so in the siting of facilities in flood-

[1]Source: U.S. Department of Commerce, *Climatography of the United States No. 85 (Pennsylvania).* MONTHLY AVERAGES OF TEMPERATURE AND PRECIPITATION FOR STATE CLIMATIC DIVISIONS, 1941-70; National Climatic Center, Asheville, North Carolina, July 1973.

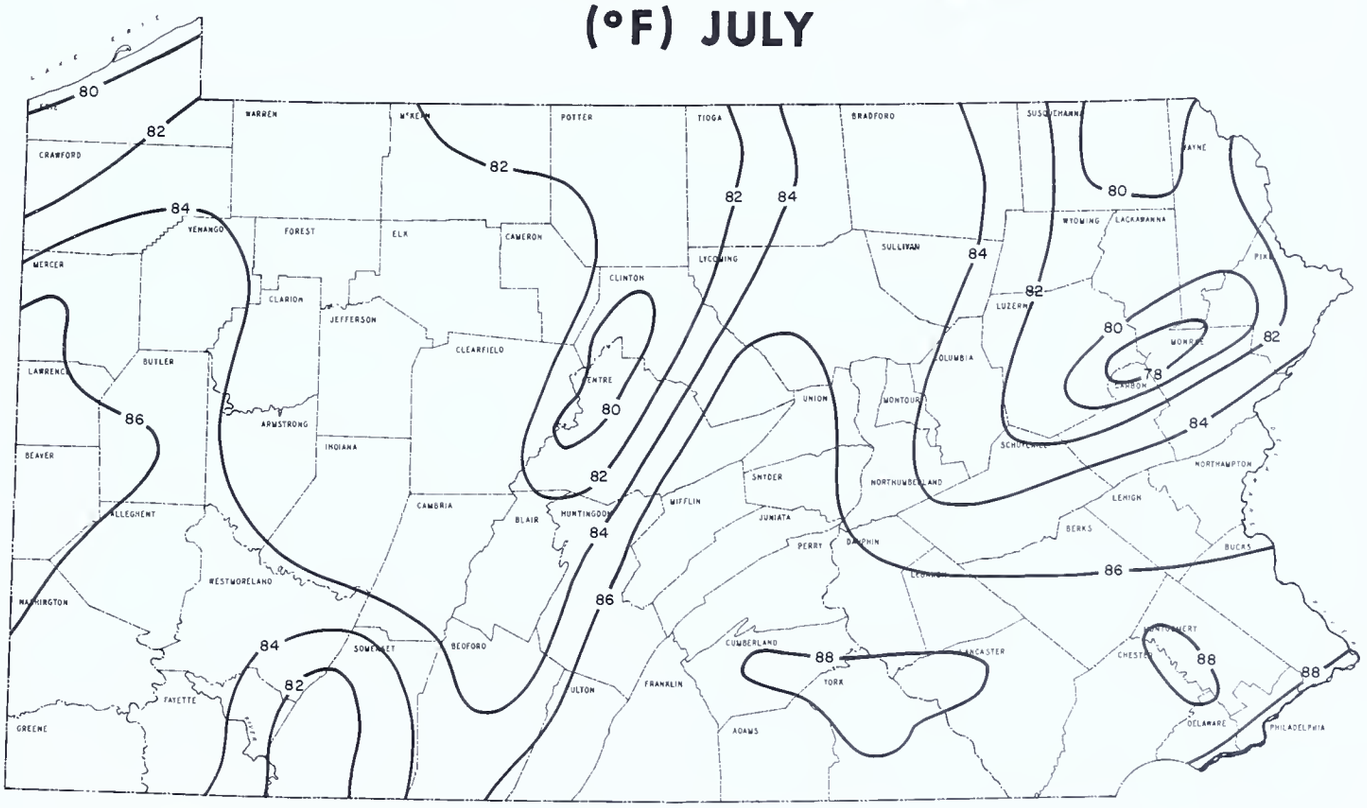
Note: The State is divided into ten (10) areas, each representing, as nearly as possible, homogeneous climatic regimes. These do not correspond to the planning regions established by OSPD. The value for each region is the simple arithmetic average of the data for all the stations in the division that furnished both temperature and precipitation records. Monthly normals for the reporting stations reported in publication MONTHLY NORMALS OF TEMPERATURE, PRECIPITATION, AND HEATING AND COOLING DEGREE DAYS, same source.

MEAN MINIMUM TEMPERATURES (°F) JANUARY



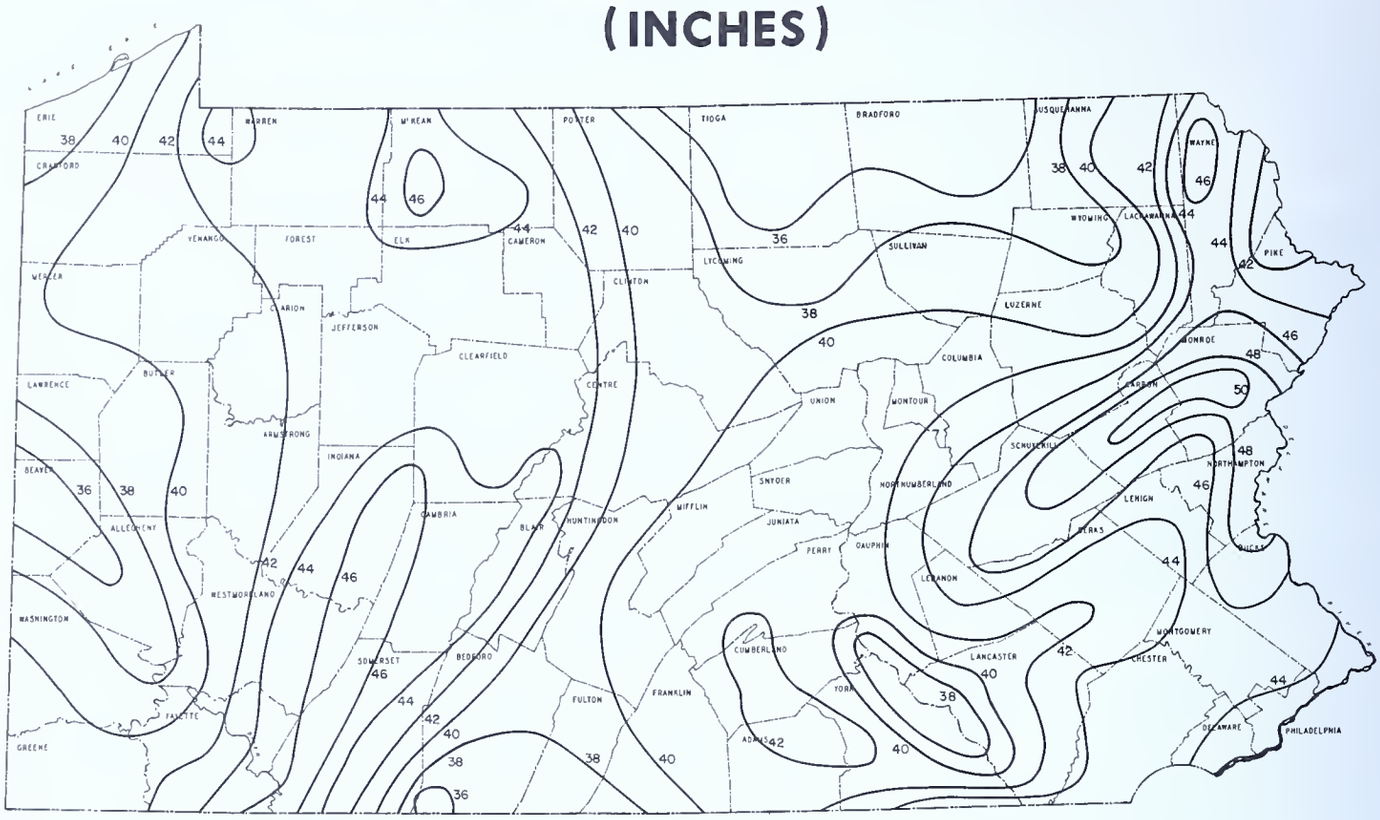
MAP 7

MEAN MAXIMUM TEMPERATURES (°F) JULY



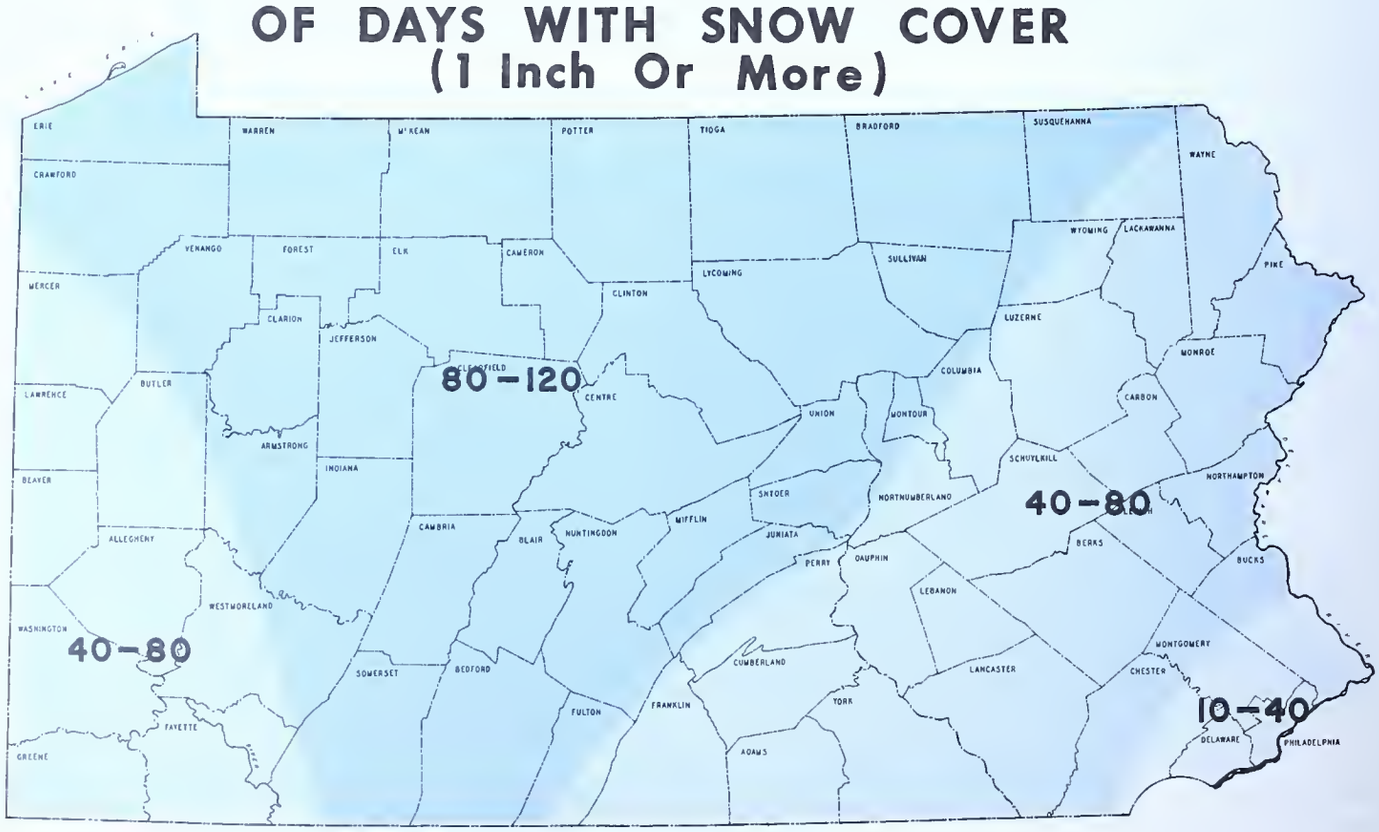
MAP 8

MEAN ANNUAL PRECIPITATION (INCHES)



MAP 9

AVERAGE ANNUAL NUMBER OF DAYS WITH SNOW COVER (1 Inch Or More)



MAP 10

prone areas and the viability of recreation—open space use of flood plains.

Precipitation extremes are also characteristic of the winter season. While the totals, expressed as rainfall equivalents, are less spectacular than for the summer months, if thought of in terms of snowfall, they are truly significant. Thus, in the Lake Erie "snowbelt", a January precipitation figure of 5.57 inches in 1952 can translate into several feet of snowfall. However, the reality may be a combination of rain and snow. Similarly, in the Poconos, the 1970 precipitation total for January was a low 0.79 inches with the average monthly temperature a record low of 16.9°F. It can be assumed that the precipitation was in the form of snow. However, for January 1953, the precipitation was a record 5.11 inches with the temperature average of 29.8°F. If all the precipitation had been snow, the total would have been over 50 inches. However, the combination was more probably rain and snow. Throughout the Commonwealth, the patterns of snowfall and duration of cover are much more varied year-by-year than are the patterns of rainfall and total precipitation.

The growth in winter recreational sports has placed a premium on areas of snow and ice cover. A Pennsylvania winter recreation resource inventory requires detailed statistics on ice and snow cover. For purposes of statewide planning, a careful delineation of promising areas is essential. The market for facilities is such that development has been undertaken in areas of only marginal resources. A cycle of cold, snowy winters results in a rash of new schemes and development projects to stimulate outdoor winter sports activities; a subsequent cycle of warmer, rainy winters results in frustrations both for the developers and the would-be users.

A very generalized map of snow cover has been developed by the Federal Government (former U.S. Weather Bureau) for the period 1899-1938 (Map 10). This is only a start for better statistical data for the development of winter recreation resources.

In summary, it is to be noted that Pennsylvania's range of heat and moisture over a given year's duration is a valuable resource to be capitalized on through recreational development. The limitations of its year-to-year variations require careful assessment in order to fulfill anticipation and minimize frustrations.

OUR CULTURAL HERITAGE—THE FIRST 200 YEARS

When, at the beginning of 1681, William Penn was given a province in the new world, his journal entry credited God for the "seed of a nation". In less than ten generations his 28 million acres of forest, accessible only by stream and Indian trail, populated by 15,000 American Indians and teeming with wildlife, including mountain lion, bobcat, elk and bear, would become an urban, industrial, steel-producing leader of a federal union of states.

King Charles II of England granted this province to Penn in payment of a debt owed to Penn's father. For rental, Charles asked for only one-fifth of all the gold and silver that Penn should find, plus two beaver skins yearly. Charles named the land Pennsylvania (Penn's Woods), which also included the State of Delaware in order to provide an access to the sea. The charter was signed March 4, 1681, and, in August 1682, Governor William Penn hoisted anchor aboard the "Welcome" with a hundred Quakers and set sail for the New World to begin his holy experiment.

Penn chose the site where Philadelphia is presently located as his capital because it was "high, dry and healthy" and because its river was navigable. On arriving there, Penn first relocated the resident Swedish farmers and then signed a treaty with the local Indians, the Delaware tribe who called themselves the Lenni-Lenape and who called Penn "the great and good Onas". Between 1682 and 1684, Penn acquired most of the southeastern part of Pennsylvania through nine treaties with the Indians.

Today, the red man is little more than a memory in Pennsylvania. Until 1964 the State retained a small Indian settlement on lands granted to Chief Cornplanter by the Commonwealth. This settlement was located on the west bank of the Allegheny River, twenty miles northeast of Warren, until the Allegheny Reservoir was constructed. The last fifty families of Seneca blood were then relocated into New York. Although several hundred descendants of other tribes are scattered throughout Pennsylvania, their tribal identities are all but lost through fusion with the white man's culture.

Although the Indians' imprint is confined largely to major stream valleys where their villages and cultivated lands were located, one outgrowth of Indian culture is prevalent throughout the Commonwealth and has made a more permanent record than any other evidences of Indian habitation. This is the Indian trail, for the most part, narrow winding footpaths frequently following older buffalo trails which criss-crossed the entire State. Some trails paralleled streams and others followed winding divides between narrow V-shaped valleys. Frequent use was made of water and wind gaps for crossing from one valley to another. These trails enabled the Indians to travel across the State in migratory, hunting and war journeys and were so well located they later provided major access into and through the

State for European colonists. That Indian trails were feasible routes of travel is demonstrated by the courses of several of the most important highways of today. The Lincoln Highway, the William Penn Highway, the Lakes-to-Sea Highway and many others follow the known routes of Indian trails.

In 1682, the European population in the province of Pennsylvania totalled about 500, including Swedes, Finns, Dutch and English. Penn's rapport with the Delawares, his liberal land grant policies and the promise of freedom from religious repression were advertised by a campaign organization throughout continental Europe and Great Britain. By the beginning of the 18th century, twenty thousand European immigrants had settled in Pennsylvania, with ten thousand in Philadelphia. English, Welsh, Germans, Swiss and Scotch-Irish came to Pennsylvania and their ethnic settlements are still distinguishable: the English in Eastern Pennsylvania, the Germans in the Great Valley and the Piedmont farmlands, and the Scotch-Irish in the mountains in the western part of the Commonwealth.

By 1740, there were 100,000 European immigrants living in southeastern Pennsylvania, with one-tenth of these living in Philadelphia. Settlers were spreading north and west to live along the Schuylkill and Delaware Rivers, although the Ridge and Valley Provinces were still Indian territory.

In the southeast, the towns of Lancaster, Reading, Easton and York were established by the mid-eighteenth century. Farming in the areas surrounding these cities produced surplus wheat, corn, rye, hemp and flax. There were orchards of apples and peaches and cattle and sheep grazed in the pastures. Saw mills and grist mills appeared. Philadelphia became a shipbuilding center and a market for farmers and fur traders whose domain stretched as far as the Susquehanna River.

Although Penn was careful, even with the authority of his charter to buy his land from the Indians, his successors were not. The Indians, while pushed westward from the Delaware River, were also migrating northward from the southern Colonies to the Susquehanna Valley by invitation of the great Iroquois Confederacy, a "Six Nation" league of tribes. The French, who had claims beyond the Alleghenies in the rich fur country of the Ohio Valley, built forts at Erie (Presque Isle) and Waterford (Le Boeuf) and an outpost on the Allegheny River at Venango. A series of armed conflicts in the second half of the 18th century, the French and Indian War, was fought, sometimes against the Indians, sometimes with Indians, and always against the French for possession of Pennsylvania from the mountains west. The outcome of the war was the opening of all Pennsylvania for settlement to adventurous friends of Penn's ancestral Eastern Pennsylvania government.

By 1772, Northumberland County and the settlements on the Upper Susquehanna Valley were established and, by the time of the American Revolution, the frontier was considered to be west of the Alleghenies.

Defense of American rights and finally the movement for independence were voted on in Philadelphia and this city, the intellectual and geographical center of the Colonies, became the home of the Continental Congress. After the British invasion in 1777, York, Lancaster, and Reading each served briefly as national capitals. Independence was assured when Cornwallis and his army were trapped at Yorktown, Virginia. Pennsylvania had contributed untold manpower, the Continental Navy, more than six million dollars of public funding and 300,000 pounds of private financial support in the form of weapons from its ironworks, horses and food. By the conclusion of the war, the foundations of the industrialization that would mushroom in the next century were firmly laid.

By 1880, with the purchase from the Indians of a triangle of land adjacent to Lake Erie, Pennsylvania completed its form as a state. Population totaled 602,000 people with the majority still concentrated in the southeast.

Philadelphia now had over 41,000 people and the inland, industrializing towns of the Piedmont were growing rapidly. Harrisburg was becoming more important as a market for the farmers in the Susquehanna and Juniata Valleys.

In the lowlands of the Lehigh Valley, the farming communities of Allentown, Bethlehem and Easton sprang up and farms in the fertile valleys of the north and west branches of the Susquehanna developed into a sizeable agricultural settlement.

By this time, many settlers and pioneers had reached the Ridge and Valley Province to the Wyoming Valley of Lackawanna and Luzerne Counties and the Middle Susquehanna Valley. In these fertile valleys, primitive agricultural communities began to flourish.

To the south of Pittsburgh in the Monongahela and Youghiogheny Valleys, another agricultural area was taking shape, centering around small market towns such as Greensburg, Uniontown and Washington. Although settlement began here much later than in the southeastern part of the State, the combination of fertile land, its strategic location and an abundance of timber and mineral resources, including bituminous coal, resulted in a sharp increase in population in the late 18th and early 19th centuries. North of this area and extending across the northern part of the Commonwealth, native forests remained and the land was virtually unpopulated.

Although the pine and hemlock forests of this wilder-

ness were as yet untouched, the hardwoods of the Piedmont and of the more populous valleys of the Ridge and Valley Province and the southwestern Plateau were being cleared for farmland. Earlier, the forests were regarded merely as obstacles to agriculture but the value of timber for constructing homes and fences, for boatbuilding and for feeding charcoal furnaces and forges was becoming increasingly apparent.

During the course of the 19th century, the population of Pennsylvania increased tenfold to a total of over six million people. The proportion of those people living in rural areas fell from 88.7 percent in 1800 to 45 percent by the end of the century. A major impetus for this growth was the realization of the magnitude of the State's natural resources and the simultaneous development of means for extracting, transporting and utilizing them.

After the Revolution came an era of transportation development. The Lancaster Turnpike, completed in 1795, was the first American macadam road, and it supported heavy Conestoga wagons between Lancaster and Philadelphia. By 1832, 3000 miles of turnpike had been built or were planned.

Canal construction revolutionized the transfer of bulky products from rural sources to distant markets. In 1827, the Union Canal provided a freight connection between the Susquehanna Valley at Middletown and the Schuylkill Valley at Reading. Canals were constructed between the Delaware River and the Lehigh River, up the Susquehanna to the Juniata River, and up the Juniata to Hollidaysburg, eventually completing a Philadelphia-to-Pittsburgh route. The mountains west of Hollidaysburg, the Allegheny Front, were surmounted by the Portage Railroad. Completed in 1834, its eleven miles of cables drew boats and cars on iron rails up five planes on each side of the mountains. This mechanical triumph is now a National Historic Landmark.

Railroads first supplemented canals and later replaced them. The Columbia Railroad, which became part of the Pennsylvania Railroad, connected the Delaware and Susquehanna waterways by a shorter route than the Union Canal provided. Railroad lines between canals accelerated the development of large-scale mining of anthracite coal. Scranton, Wilkes-Barre, Pottsville, Carbondale, and Pittston grew rapidly as mines were opened. By 1860, 2,598 miles of track crossed the State and Pennsylvania was substantially prepared to meet the logistical and industrial demands which the War Between the States would soon create.

During the crisis of the Civil War, Pennsylvania played an important role in preserving the Union of the States. Pennsylvania's railroad system, its iron and steel industries and its agricultural wealth were essential factors in the economic strength of the North. Pennsylvania's shipbuilders contributed to the Union's navy and to the shipment of supplies.

About 350,000 Pennsylvanians served in the Union army. The excess of volunteers was so great from Pennsylvania that a Pennsylvania Reserve Corps of 15 regiments was created. Camp Curtin at Harrisburg was one of the great troop concentration centers throughout the Civil War.

Pennsylvania was invaded three times by Southern troops during the war, each time by way of the Cumberland Valley, a natural highway from Virginia into south-central Pennsylvania. In October 1862, the South's General Stuart led a raid through Chambersburg. Large quantities of supplies and horses were seized and a storehouse of military supplies was burned before the troops returned to the South. In June 1863, General Lee and his army of 75,000 men invaded Pennsylvania and fought the now famous Battle of Gettysburg. This battle is considered to be one of the turning points of the Civil War. After Lee's defeat, the battlefield was dedicated by Lincoln in memory of the preservation of the Union and is today a National Historic Landmark.

The third Confederate invasion of Pennsylvania came in July 1864, when in retaliation for raids in Virginia, Southern troops burned Chambersburg, leaving two-thirds of its people homeless.

Of the Union States, only New York furnished more men than Pennsylvania. Two Pennsylvanians served as Secretary of War under Lincoln; Simon Cameron and Edward Stanton. The Commonwealth prospered during the war and though it spent over four million dollars on war costs, taxation was reduced in the reconstruction era that followed.

By 1865, Pennsylvania's factory system was well developed. There were at least 200 textile mills and lumber and tobacco industries thrived along with paper manufacturing and publishing.

Steam engines fired by cheap and available coal provided the power for Pennsylvania's industrial revolution. With coal, iron ore and limestone found locally in great quantity, Pennsylvania became the greatest iron and steel producing state in the Union. Self-contained iron communities established near ore pockets in the Schuylkill River drainage area sent their pig iron to Philadelphia. Between 1740 and 1908 at least twenty million tons of ore were brought out of the Cornwall mine alone. Weapons manufacture and the demands of a developing railroad system and machines for industry provided an ever increasing market for Pennsylvania's foundries, mines and lumber (for charcoal) enterprises.

At about the time abolitionists were seeing war clouds (July 1857), E. L. Drake drove a pipe into 70 feet of sand and clay at Watson's Flats near Titusville and

saw oil ooze up to the surface. By 1860, there was wild speculation about oil resources.

The value of bituminous coal had been recognized as early as 1760, when it was used to heat Fort Pitt. By 1832, steam-powered industries in Pittsburgh used 400 tons of bituminous coal daily. Hot-burning and heavy northeast anthracite coal was used rarely before the era of the "state works," the canal era. In 1800, anthracite mines produced only 250 tons, compared with 87,000 tons from the bituminous mines. Canal transportation from the northeast and new demand for smokeless, hot coal brought the market for each type almost even at a half million tons for anthracite and 451,000 tons for bituminous in 1832.

As coal production increased, forests were cut to provide lumber for pit props, buildings, attendant rail line ties, fuel, and for canal boats and barges used to carry the coal to market. Most of the more populated areas in the east were becoming deforested by 1840. After the depletion of virgin forests in the populated areas of the southeast and southwest, new sources were needed. Attention was now focused upon the vast pine and hemlock forests of northern Pennsylvania, which had been largely neglected by early settlers. In 1833, a lumber mill was constructed at Williamsport and, in the following years, the amount of lumber cut and floated downstream grew steadily. After the construction of railroads, cutting began in earnest, until by 1860, Pennsylvania led the nation in lumber production. As the demand increased, lumbering communities appeared overnight in the northern plateau. The need for hemlock bark for tanning processes complemented the need for lumber and added a new element to the industry. More than 300 tanneries were operating in the Allegheny Forest region alone and some of the largest tanneries of the United States were to be found along the Philadelphia and Erie Railroad Line.

Boom company lumbering on the Susquehanna and above Williamsport had become nearly a 300 million dollar industry by 1870. It declined thereafter and by 1889 had dwindled significantly.

THE LEGACY

The nineteenth century's urgent development was achieved at a great cost to the physical resources of the Commonwealth. Most of the best timber stands were destroyed and forest fires swept over scrub oak, sumac and fire cherry which had replaced the original species. With loss of forest cover and with frequent burning came flooding and soil losses. Of Penn's twenty-eight million acres of dense virgin forest, information compiled in 1914 concluded: "Today less than fifty percent is covered by woody growth and five million acres of this is barren or unproductive, while many more acres are poorly stocked with trees."

This widespread environmental destruction and unregulated hunting and fishing, plus heavy bounties, drastically reduced wildlife stock. Industrial waste, stream pollution and contamination from oil wells and mines cut deeply into the fish population.

Around the turn of the century, leaders in the Commonwealth pledged to protect and, wherever possible, to renew its natural resources. In 1895, the Division of Forestry was created in the Department of Agriculture, and two years later it began acquiring forest lands. By 1918, the Division of Forestry, which had become a separate entity in 1901, had acquired over one million acres of land. In 1923, it became the Division of Forests and Waters which ceased to exist when the Department of Environmental Resources was established in 1970.

The foundations of Pennsylvania's parks system is rooted in the State's recognition of its responsibility to not only conserve, but to utilize forest resources. Although, today, the management of forests and parks is the responsibility of two separate bureaus within the Department of Environmental Resources, their foundations and concerns emanate from a common source.

The same year the Division of Forestry was established, 1895, a State Game Commissioner was appointed and by 1897, had established hunting regulations. In 1919, State legislation authorized the purchase of land for game preserves. The Fish Commission was established in 1866 for the purpose of ensuring fish passage around dams on the Susquehanna. The Department of Fisheries was created in 1903 for the protection of fish resources.

Public interest in the protection and restoration of the natural environment has broadened since the initial legislative efforts were made and now includes control of mining and pollution.

TODAY—AN OVERVIEW

In the twentieth century, Pennsylvania has been host to accelerating urban expansion. Areas of population concentration have increased in number and size as transportation means have improved and as industry and commerce have flourished. In the last century, agricultural produce, coal, iron ore, oil and timber

moved along waterways and railroad tracks between communities otherwise separated from each other by dense forest and mountain terrain.

Advancements in transportation, communications, and industry have placed the Commonwealth of Pennsylvania first among the states in output of iron and steel and third in overall production of minerals. Pennsylvania factories annually produce billions of dollars worth of electrical machinery, chemicals, pretzels, clothing, transportation equipment, tobacco products and electronic circuitry. Though not primarily an agricultural state, Pennsylvania annually produces livestock and crops worth over three-quarters of a billion dollars and forest products valued at more than a billion dollars. Philadelphia is a leading seaport and a major shipbuilding area. This heavy concentration of agriculture, industry, mining and transportation has made the State a national financial and banking center.

Population increases and economic development are hastening the urbanization process so that more and more Pennsylvanians are finding themselves cut off from the open countryside. By 1960, 71.6 percent of the population was living in urban areas while nationally the percentage was 69.9 urban. By 1970, the national figure had increased to 73.5 percent and Pennsylvania's had dropped slightly to 71.5. This percentage of the 1970 total State population of 11,793,909 accounts for 8,430,410 urban residents. This segment of the total population occupies but 12.5 percent of the total area (3.5 million acres of a total 28.8 million). A further breakdown of the State's 71.5 percent urban concentration in 1970 reveals that 58.7 percent lived in cities of 50,000 inhabitants or more or in the adjacent developed fringes (Map 11).

Population changes within urban areas reveal a trend in the decade to 1970. An exodus from dense center city concentrations to the urban fringe resulted in an 18 percent population increase in the areas immediately adjacent to cities while the center city population declined five percent. Statewide population figures, however, do not account for the dynamics of population change and urbanization in Pennsylvania.

Pennsylvania is situated between two major metropolitan regions affecting population growth and urbanization in the southeastern and western sections of the State. Southeastern Pennsylvania has become a part of the Atlantic Metropolitan Region extending from Massachusetts to Virginia. This, the great eastern megalopolis, includes five major cities: Boston, New York City, Philadelphia, Baltimore, and Washington, D.C. This economic complex is growing in density and in area westward into Pennsylvania. In the ten-year period, 1960 to 1970, counties west and north of Philadelphia increased in population substantially, while the city's population decreased 2.7 percent (Map 1).

The western part of Pennsylvania is on the edge of the Great Lakes Industrial Belt. This emerging megalopolis encompasses Milwaukee, Chicago, Detroit, Cleveland, Pittsburgh, Buffalo, and Toronto. Although the Pittsburgh area population has declined and the Erie population has increased only moderately during the period 1960-1970, the Great Lakes Industrial Belt has influenced unmistakably the urban patterns in western Pennsylvania. Interconnected lake front industries and the flow of iron ore from Minnesota's iron range to Pittsburgh's steel mills through lake ports at Erie and Cleveland have established western Pennsylvania's position in the economic structure of the megalopolis.

The Atlantic urban sprawl and its associated economic development have not reached generally into Appalachia. Nearly all the Commonwealth's growth and development between 1960-70 have been in the Great Valley, Piedmont and Southeastern Regions (Map 12).

Current studies indicate that the population of the United States will increase to 239,818,000 by 1985 and to approximately 252,666,000 by 1990. Although it is recognized that projections beyond 1980 are especially tenuous because of the simple inability to foresee important social and economic developments, it is projected that Pennsylvania's share of the national population will be 12,822,389 or 5.3 percent of the 1985 total and 13,385,204 or 5.2 percent of the total in 1990. Although, in fact, Pennsylvania dropped from the eighth most densely populated state in 1967 to the ninth in 1970, with an average of 262.3 persons per square mile (U.S. average is 57.5), it must prepare to accommodate an additional 1.5 million people by 1990. This increase, concentrated in urban centers, is certain to have a significant effect on the physical character of the State and on the need for the availability of recreation facilities and open space.

The actual amount of land needed for urbanization compared with total land area of the State indicates that Pennsylvania is not likely to run out of land for urban purposes in an absolute sense. But the nature of area expansion of urban concentrations is a peripheral low density spread which results in the isolation of the majority of urban residents from open countryside. This process of public and private acquisition has seldom had the singlemindedness to distinguish between land which is suitable for development and land which should be preserved for recreation, agriculture and conservation purposes. The problem of wise land use is particularly difficult on the urban fringe where recreation and resource protection requirements are greatest. This problem, control of the urbanization process, is the major recreational and environmental concern on the horizon for Pennsylvania.

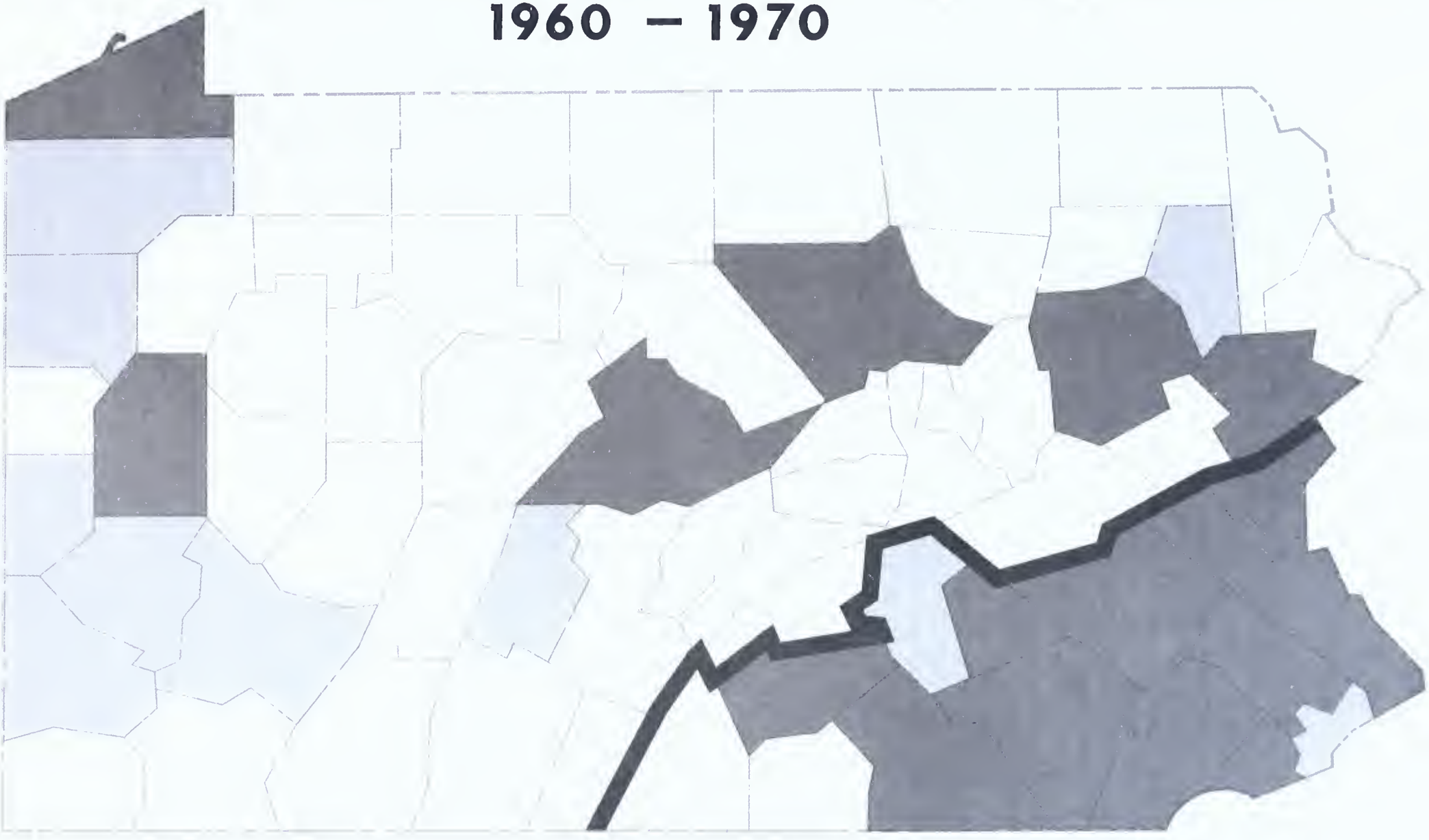
PENNSYLVANIA POPULATION CENTERS

URBAN CENTERS

URBANIZING AREAS

MAP II

ECONOMIC GROWTH AND LEVEL OF ECONOMIC DEVELOPMENT: COUNTIES EXHIBITING BEST OVERALL PERFORMANCE 1960 – 1970



RANK IN TOP TWO QUINTILES IN BOTH ECONOMIC GROWTH AND LEVEL OF ECONOMIC DEVELOPMENT

RANK IN TOP TWO QUINTILES ONLY IN LEVEL OF ECONOMIC DEVELOPMENT

RANK IN TOP TWO QUINTILES ONLY IN ECONOMIC GROWTH

RANK IN TOP TWO QUINTILES IN NEITHER ECONOMIC GROWTH NOR LEVEL OF ECONOMIC DEVELOPMENT

APPALACHIA

Source: O.S.P.D. Comparative Study Of Economic Development In 67 Counties In Pennsylvania, February, 1973

MAP 12

SUMMARY

Many of the problems attendant to supplying open space and recreation opportunities will be solved if the urbanization process can be integrated responsibly with the undeveloped countryside. Pennsylvania's wealth of natural and cultural resources have been the foundation of its successful economic growth, but industrial development and urbanization which accompany it have, in the past, threatened the environment.

Today, forests in Pennsylvania have been restored to cover more than one-half of the State. Hardwoods, which compose most of the forest area, contain red and white oak, hard maple, beech and yellow birch. Chief softwoods are hemlock and white, red and jack pine. Less than one-fourth of this cover is owned by public agencies. More than half is in the hands of miscellaneous private owners who, with only local ordinances for guidance, can develop land haphazardly. Of the remainder, the forest industry itself accounts for three percent and farmers about twenty percent. In addition to its commercial forest, the State contains small, scattered remnants of the original forest cover (Map 13).

Accompanying the rebuilding process of the Commonwealth's forest resources has been an improvement in wildlife resources. Despite the large population, with dense concentrations in areas distributed throughout the State, Pennsylvania remains one of the best hunting states in the nation. More people hunt in Pennsylvania than in any other state and more nonresident hunters come to Pennsylvania than to any other state. Its rolling hills and farmlands, its woods and open spaces provide an abundance of big and small game.

The forests offer some of the finest deer and wild turkey hunting found anywhere. The Commonwealth's woodlands have sizeable populations of bear, squirrel, woodcock and ruffed grouse. The Pennsylvania hunter finds pheasants, bobwhite quail and cottontails in fields and bushlands and ducks and geese in the marshes. Of the furbearing animals, there are raccoons, skunks, mink, muskrats, and red and gray foxes.

No city in Pennsylvania is more than an hour's drive from good deer hunting and good small game hunting. Deer are found in every one of the State's 67 counties and are surprisingly prolific within a few miles of Pittsburgh and Philadelphia.

Bear is restricted for the most part, to the rugged, mountainous region across the northern half of the State; wild turkey and grouse are found in every wooded county, usually in good numbers.

The best rabbit and pheasant hunting is found in the farming areas of southeastern, southwestern and northwestern Pennsylvania but other good areas are found in the Susquehanna Valley from Williamsport south and in the region surrounding State College. The best bobwhite quail range is in the south central counties.

Elk graze the inaccessible mountain terrain in Pennsylvania. They have been restocked and, for many years, have not been hunted.

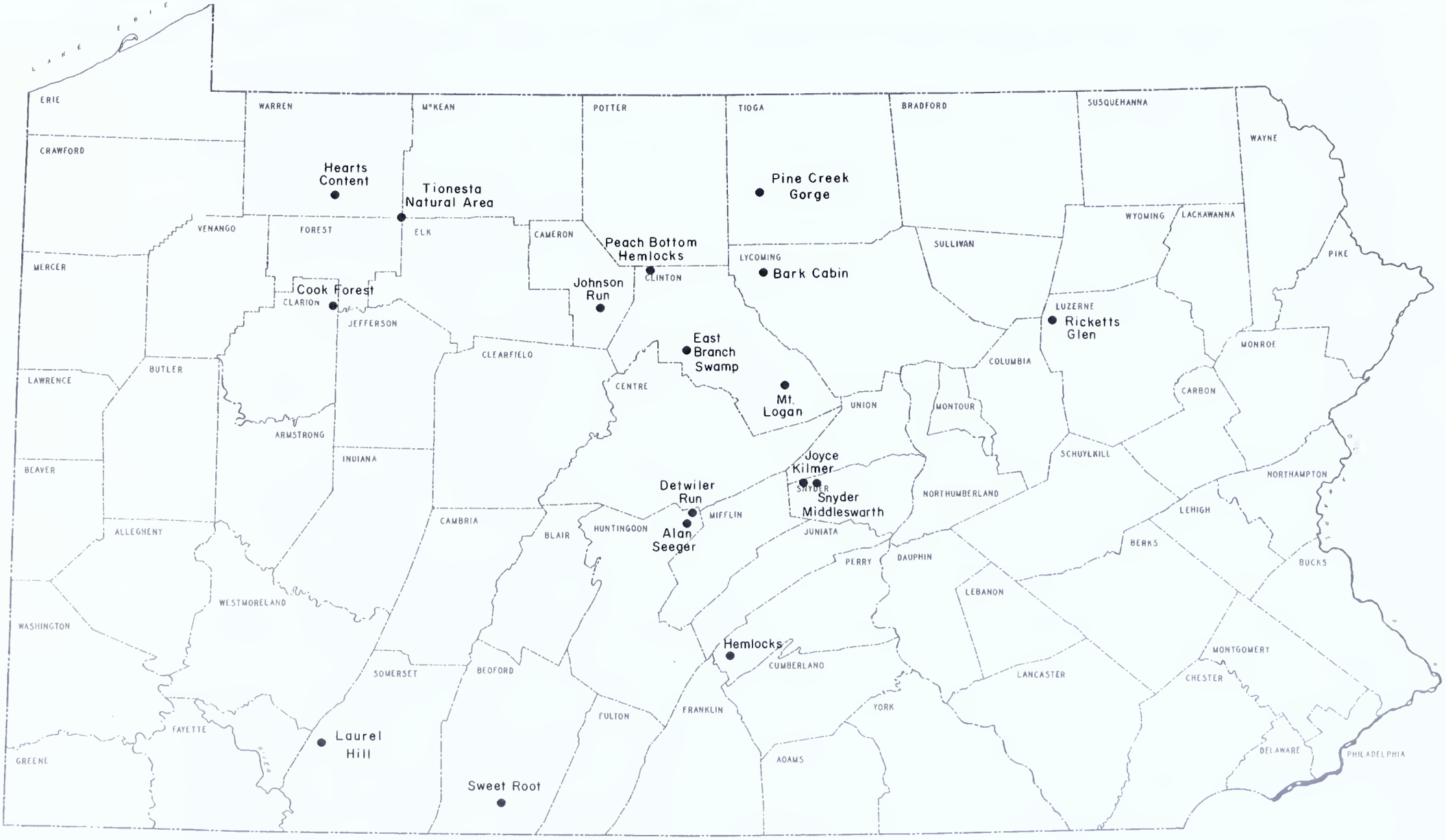
The Commonwealth has an active Game Commission which manages State lands for wildlife protection and propagation on the one hand, while assisting in the improvement of wildlife resources for hunting throughout the State on the other.

Exploitation of the Commonwealth's mineral and forest resources and the dual processes of industrialization and urbanization have combined during Pennsylvania's history to reduce her aquatic resources. This has been recognized especially with respect to fish. It is important to the Commonwealth's image of a quality environment that the State provide a varied and well-distributed fish population. Serious problems remain in achieving environmental goals but progress is identifiable in legal, management and development approaches; meanwhile, the environment for fish will remain fragile in the face of competition for the Commonwealth's water resources among the multiple interests.

There are about 200 species of fish to be found in Pennsylvania's rivers, streams, lakes and ponds. Brook, brown and rainbow trout, the latter two introduced from Europe and California respectively, frequent most unpolluted headwater streams and the colder creeks and rivers. Natural populations are supplemented by the Pennsylvania Fish Commission by stocking 4,000,000 trout in 5,000 miles of these streams and 110 lakes and ponds. Coho, Kokanee and Chinook salmon have been introduced successfully to Lake Erie and its tributary streams by the Fish Commission and provide a popular new fishery for Commonwealth anglers. Largemouth, smallmouth and rock bass are prevalent and popular with fishermen throughout the State. In the pike family, northern pike, pickerel and the giant muskellunge are now found in lakes and streams in all sectors of the State. The walleye, suckers, fallfish and carp are distributed widely and all provide a great deal of recreation, as do the ever-present panfish. Pennsylvania's anadromous fish, other than those which migrate from Lake Erie, are limited to our last major free-flowing river, the Delaware, which offers fine fishing for shad, eel and striped bass.

Fishing of some kind is available within a few miles of all residents of the State. Ponds, lakes, streams and rivers are available even to residents of Philadelphia and Pittsburgh. City anglers able to drive 30 miles can find varied fishing, including stock trout. Residents of

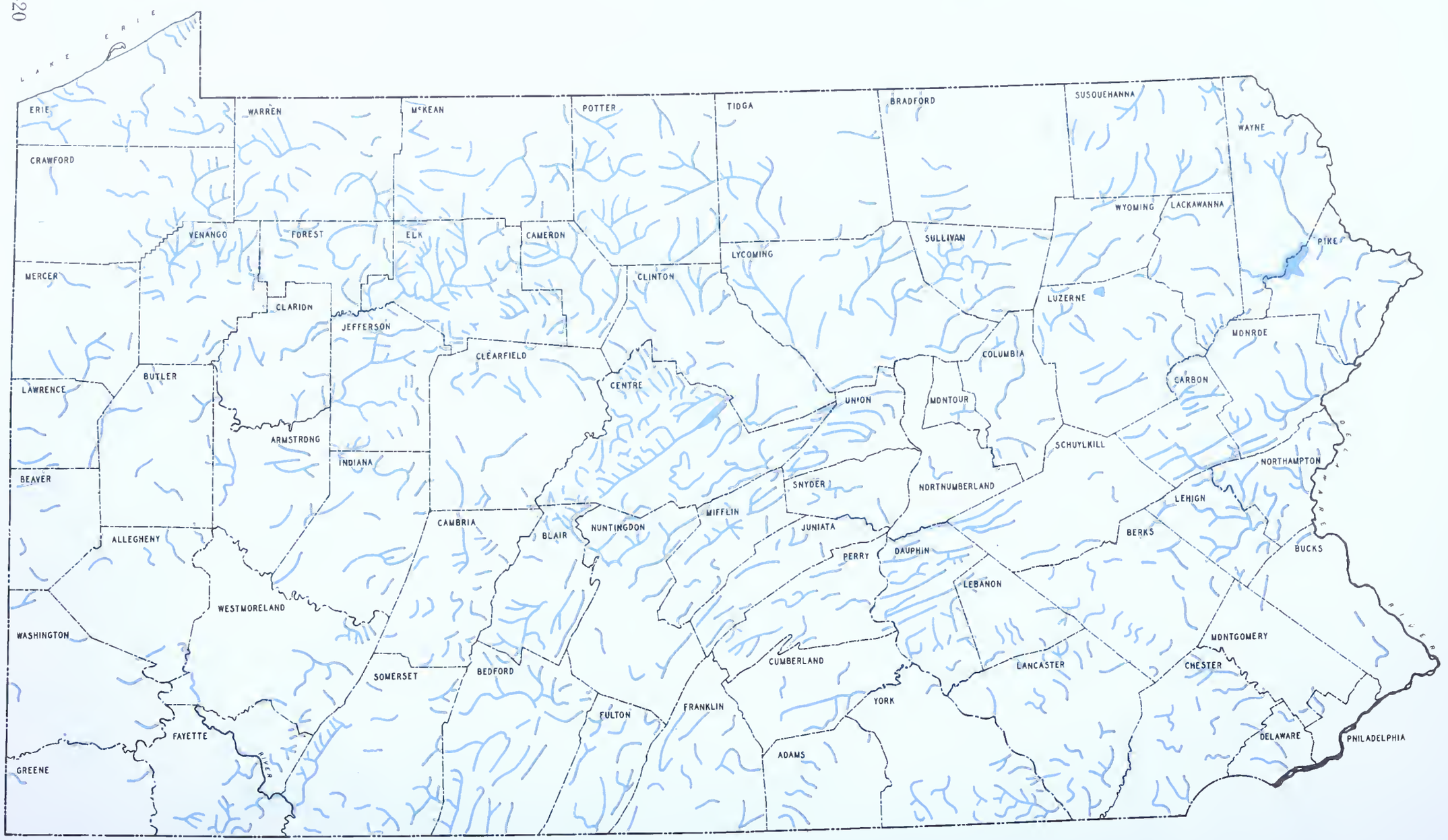
VIRGIN TIMBER STANDS



Source: Department Of Environmental Resources

MAP 13

WARM AND COLD WATER FISHING STREAMS



MAP 14

the Commonwealth's rural areas can generally find good to excellent fishing within a few miles of home (Map 14).

Finally, in a recreational resources analysis in the mid-1970's, recognition must be given to a significant development in the perception of a quality environment for Pennsylvanians; namely, the contribution of the State's cultural heritage. Here is a priceless resource reflecting three centuries of European-nurtured settlement and growth; here, among modern structures, remain the early forms of settlement and their political-social livelihood and commercial institutions. The preservation, restoration and incorporation of these resources into the statewide recreational program is essential. To ignore them is to aspire for a quality of life immeasurably below the grasp of the Commonwealth.

The efforts to capitalize upon the cultural heritage of the State are many-pronged and many-layered. The Commonwealth is joined by the Federal Government, private foundations, local political units, citizen's groups and individuals in the identification of worthy representations of this heritage and in developing the means to preserve them and to incorporate them into Pennsylvania's pattern of living. Thus, the State has a truly magnificent inventory of buildings, institutions, monuments, battlegrounds, canals and locks, roadways, industrial units (lumber, mining), neighborhoods, agricultural communities, physical landscape features and even "open space" to mark one's perception of this resource. Citizens have created historic districts, museums and parks; preservation societies and acquisition organizations; heritage centers and working exhibits. Spurred by the advent of the Bicentennial of the Nation, the creation of which was deeply-rooted in Penn's Woods, the State is fashioning a recreational program from cultural resources to match and to complement natural resources. Guidance and development-management participation is vested in the State Historical and Museum Commission augmented by all Commonwealth agencies charged with resource-use responsibilities.

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chapter III

Roles and Responsibilities

Chapter III

ROLES AND RESPONSIBILITIES: FEDERAL, STATE, LOCAL & PRIVATE

One of the first steps in developing a state recreation plan is acquiring an understanding of the framework in which recreation facilities and services have been and are provided. Since planning is predicated on the principle that unmet needs can be met if dealt with properly, examination of supply and demand—what we have and whether it is adequate—must begin with a consideration of the foundations—why we have what we have.

THE FEDERAL GOVERNMENT

More than 80 Federal agencies, commissions, committees and councils provide more than 300 separate outdoor recreation related programs. The Outdoor Recreation Resources Review Commission found that these programs could be divided into eight general categories:

1. The management of national forests, public domain, wildlife refuges, military reservations, national parks and monuments, national recreation areas and lands held in trust for the Indians.
2. The encouragement of soil and water conservation practices to maintain and improve the resource base.
3. The exercise of leadership in research, innovation and planning.
4. The setting of standards, securing their acceptance and enforcing them.
5. The coordination of the many Federal, State and local outdoor recreation programs.
6. The determination of priorities through Congressional appropriations and their incentives and sanctions.
7. The encouragement of (and assistance to) State and local governments to assume a more active role in providing recreation opportunities for their people.[1]
8. The formulation of Federal outdoor recreation policy.[2]

Until the creation of the Bureau of Outdoor Recreation within the Department of the Interior in 1962, no Federal agency had as its major responsibility the overseeing of public recreation concerns. Although several agencies had recreation responsibilities as "incidental, and almost...accidental, byproduct(s) of the 'primary' purposes"[3] for which they were established, these agencies did not fully recognize their responsibilities for recreation until they were overwhelmed by recreationists using Federal facilities after World War II. The need for a national policy on recreation then became apparent.

Bureau of Outdoor Recreation, Department of the Interior

Since its inception in the early Sixties, the Bureau of Outdoor Recreation, through its planning programs, coordinative functions and policy formulating responsibilities, has been the focal point of Federal response to recreation needs.

As administrator of the Federal Land and Water Conservation Act of 1965, the Bureau provides assistance to the states and, through them, to local government facilities. This program has invested about $55 million in Pennsylvania, including assistance for the preparation of this recreation plan, the *1971 Statewide Comprehensive Outdoor Recreation Plan*, and the *1965 Interim Report*.

In 1974, the Bureau published the National Outdoor Recreation Plan, *A Legacy for America*, which was the first statement of Federal policies on the use of the Nation's natural resources for recreation.

U.S. Army Corps of Engineers

In its civil role, the Corps of Engineers is responsible principally for the construction and operation of navigation, beach erosion control, major drainage, and flood control projects. Because so many recreation activities involve water, these projects which include levees, channelization, locks and dams, and reservoirs directly or indirectly affect recreational opportunity.

In recent years, the Army Corps has been placing increasing emphasis on the recreational possibilities of these projects. Reservoir projects, for example, have been designed to serve not only as flood control impoundments and to alleviate low flow conditions, but also to provide a variety of recreation activities. In addition to the obvious such as swimming, boating and fishing, facilities also frequently accommodate hiking, bicycling, camping, picnicking and even fossil collection. Of the 22 Corps reservoir projects in Pennsylvania, twelve accommodate recreationists. In conjunction

with the State parks program, many are leased to and operated by the Pennsylvania Department of Environmental Resources.

While the multi-purpose approach to reservoir projects has greatly enhanced recreational opportunity in Pennsylvania, design criteria of other Corps projects, such as stream channelization which destroys fish habitat, must continue to be evaluated from the perspective of total ecological impact.

The Federal Power Commission

The Federal Power Commission, by regulating the planning, construction and operation of hydroelectric projects, ensures that fish and wildlife resources are not abused and that the affected reservoirs provide recreational opportunities that are responsive to the needs of the general public. This policy is enforced through a system of permits and licenses.

The Commonwealth's basic posture with respect to recreational developments at sites licensed by the Federal Power Commission is that specific recreational proposals will be reviewed by appropriate State agencies, to assure that they are in basic accord with the policies and priorities of this plan.

Soil Conservation Service, Department of Agriculture

The Soil Conservation Service administers three programs which have important recreational benefits. The Service provides technical assistance to private landowners in planning and constructing fishing, boating, camping, or picnicking facilities and, through the Resource Conservation and Development Program, provides technical and financial assistance to water oriented recreation projects and fish and wildlife developments.

Through the Watershed Protection and Flood Prevention Program or "Small Watershed Program", smaller watersheds (less then 250,000 acres) are developed to provide flood control and water supply for fish and wildlife habitat and to preserve land for recreational use. These projects are initiated locally but are planned and developed with the assistance of the Soil Conservation Service. The Federal Government shares construction costs with local government and may share acquisition costs for land to be used for recreational purposes.

Agricultural Stabilization and Conservation Service, Department of Agriculture

The Agricultural Stabilization and Conservation Service, through the Rural Environmental Assistance Program, shares costs with farmers for certain conservation practices, including farm ponds, which, in addition to other purposes, may be used for fishing, swimming and waterfowl habitat. This agency also provides cost-sharing to landowners in conjunction with a variety of recreational practices through the Appalachia Land Stabilization and Conservation Program.

Farmers Home Administration, Department of Agriculture

The Farmers Home Administration makes or insures loans to farmers to finance recreation enterprises. Most of the funds for these loans are furnished by private lenders and insured by the Federal Government.

Forest Service, Department of Agriculture

Since its inception in 1905, the Forest Service, in managing the national forests, has been guided by three basic policies: 1) that use of national forests must be consonant with the protection of resources, 2) that as many uses as possible are permitted as long as they do not endanger ecological processes, and 3) that the interests of local people are included in management decisions.

Over the years, the Forest Service has found itself in the middle of an unflagging conflict between preservationists and the timber industry. In accord with its policy of multiple use, the Forest Service has tried to arrive at equitable compromises. In addition to timber production, the national forests are managed to provide watershed protection, grazing reserves, wildlife refuge and outdoor recreation.

As part of its responsibility for providing recreation services, the Forest Service conducts the Operation Outdoors Program for rehabilitating over-used recreation facilities, surveys facilities and prepares plans for implementation in the national forests. The management programs are reflective of the Service's recreation responsibilities, which were specified in the Multiple-Use and Sustained Yield Act of 1960.

National Park Service, Department of the Interior

The National Park Service is responsible for acquiring, preserving and maintaining unique scenic or natural areas and historic and prehistoric sites that are of national significance. In recent years the Service has also become responsible for acquisition, development and maintenance of national recreation areas, such as the authorized Delaware Water Gap National Recreation Area as well as national cemeteries, monuments, parkways and historical properties. The Service also administers the National Historical Preservation Act of 1961. Emphasis is being placed not only on preserving sites but also on their recreational possibilities.

In addition to the administration of its own properties, the National Park Service encourages the preservation of nationally significant properties, regardless of ownership, through its program of identifying and registering National Historic Sites and Landmarks.

Fish and Wildlife Service, Department of the Interior

The Fish and Wildlife Service is responsible for managing wildlife refuges and fish hatcheries, operating environmental education centers, conducting research on fish and game conservation and providing financial assistance to states for acquisition, development and maintenance of impoundments, access areas and fishing piers.

The Service is also responsible for administering the collection of excise taxes on fishing equipment and sporting arms and ammunition. These revenues fund many of the Service's programs.

Other Federal Agencies

Other Federal agencies have peripheral responsibilities for recreation which are important. For example, the *Department of Housing and Urban Development* administers community development grants, the *Small Business Administration* provides technical assistance and loans to outdoor recreation businesses, the *Environmental Protection Agency* administers the water pollution control program, and the *Department of Transportation* administers the highway beautification and bikeway development programs.

COMMONWEALTH OF PENNSYLVANIA'S RESPONSIBILITIES

Like the Federal Government, the Commonwealth's responsibilities in the recreation field are distributed among several agencies. Those agencies most directly involved are: the Pennsylvania Department of Community Affairs, the Pennsylvania Department of Environmental Resources, the Pennsylvania Fish Commission, the Pennsylvania Game Commission, and the Pennsylvania Historical and Museum Commission.

Agencies less directly involved include the Pennsylvania Department of Education, the Pennsylvania Department of Transportation and the Pennsylvania Department of Public Welfare. Although the primary responsibility of these "less involved" agencies is not the direct supply of recreation services, the use of facilities provided under their "other" programs, substantially enhances recreation opportunities in the Commonwealth.

Pennsylvania Department of Community Affairs

When the Bureau of Recreation and Conservation was established in the new Department of Community Affairs in 1966, it was recommended that it "be an advisory and technical agency and...not have natural resource development as a primary responsibility."[4] Accordingly, the long-range objectives of the Bureau have been to enhance community attractiveness by helping local governments to provide, reclaim and preserve open space; to provide financial assistance for recreational and open space land use; to encourage cooperation among adjacent communities in acquiring and developing recreational facilities; and to assist in improving existing public recreation facilities and programs.

The programs of the Department of Community Affairs reflect this service orientation. Along with other State agencies, it has received funding for recreation programs under the Pennsylvania Land and Water Conservation and Reclamation Program (PROJECT 500) and though the Federal Land and Water Conservation Program. The Department, in turn, reallocates this money on a matching basis to local government for recreation development.

Although funding for the acquisition of park land under PROJECT 70 concluded in 1970, the Department of Community Affairs still considers the development of land acquired through this program to be one of its continuing responsibilities, especially on those sites which are intended for heavy use.

In its PROJECT 500 Program, the Department of Community Affairs has channelled $75 million of Commonwealth money to communities for developing recreation land, for acquiring more open space in areas having serious deficiencies, and for preparing planning studies of local recreation needs. Funds available under this program have all been committed. In some instances, PROJECT 500 funds are supplemented with Federal Land and Water Conservation Funds, which are also to be used for the purpose of developing local park and recreation facilities.

Pennsylvania Department of Environmental Resources

The Department of Environmental Resources was created by the Legislature in 1970 by Act 275 in order to centralize into one Department the responsibility for the management of the State's natural resources. The Department has a multiplicity of programs to develop and manage resources, as well as protect them from the ravages of pollution. The recreational use of these resources are managed by two major offices within the Department.

The Office of Resources Management is responsible for the planning and management programs of the Department. Within this Office are the Bureaus of State Parks and Forestry. Both of these agencies attempt to maximize the recreational benefits of the lands they manage.

Under PROJECT 70 the Department acquired lands

for recreational/conservation purposes in 27 areas which totalled 76,494 acres and for historical purposes for the Historical and Museum Commission in 18 areas which totalled 1,107 acres. PROJECT 500 funds have been utilized by the Department for recreational purposes in 14 new State park areas. Major developments completed or under construction from 1967 through 1973 include: day use, camping, swimming, boating, nature/education and hiking areas; reservoirs; equestrian facilities; and administrative complexes.

In order to manage future uses of State forest and park resources, the Office of Resources Management has prepared a *State Forest Resources Plan,* which subscribes to the multiple use management concept and an agency management plan, *Outdoor Recreation Horizons,* which is a statement of outdoor recreational objectives.

The latter plan emphasizes protection and restoration of the environment; classification of land according to natural characteristics; identification of scenic areas, rivers and drives; promotion of legislation for controlling certain rights-of-way on State land; and implementation of the *State Water Resource Plan* and the aforementioned *Forest Resources Plan. Outdoor Recreation Horizons* stresses the importance of increasing recreational capacities at State parks near urban areas, providing greater recreational opportunities for the handicapped, developing educational and interpretive programs in State parks and devising a system to continually evaluate recreation needs and demands. Reclassification of outdoor recreation lands, continued acquisition of land for recreation, preparation of development and management plans for all State parks, investigation of the viability of the user-fee system, encouragement of private enterprise in developing recreational concessions at State parks, and closer cooperation with non-government agencies involved in recreation conclude the highlights of this plan.

The other two administrative units responsible for recreation related programs are the Office of Enforcement and General Council and the Office of Environmental Protection and Regulation. The former has the major responsibility for ensuring that laws pertaining to environmental quality are obeyed, and the latter provides the technical expertise required to analyze environmental problems and develop methods to preserve or improve environmental quality, particularly as it is affected by pollution.

The Department of Environmental Resources also provides several special recreation programs. In response to the Federal Elementary and Secondary Education Act of 1965, the Department cooperates with schools in planning and conducting outdoor recreation programs on conservation in State parks. In the similar Nature Education and Conservation Program, the Department, in cooperation with a number of other State agencies, provides guided tours and lecture-demonstrations on specially marked trails.

Other special programs include the Organized Group Camping Program and the Handicapped and Senior Citizens Program, which provide special facilities for the separate needs of these groups. The Department also accommodates special affairs at its parks like the art exhibits and concerts at Point State Park in Pittsburgh.

Pennsylvania Fish Commission

The Fish Commission conducts a wide variety of programs for fishermen and boaters. Through its fish stocking, acquisition, development and management programs, the Commission constantly strives to increase the variety and quality of fishing throughout the Commonwealth with special emphasis on the needs of metropolitan centers. The Center City Cane Pole Program is a great favorite of urban youngsters. The Commission provides them with equipment and instruction at specially stocked community ponds. A similar program is conducted at State hospitals. The Fish-for-Fun Program gives fly fishermen a chance to catch trophy-sized trout. The Fish Commission also gives lectures, prepares fishing maps and pamphlets, conducts fishing classes and, when requested, plans fishing trips.

As part of its Boater Service Program, the Commission provides maps of waterways suitable for boating, charts hazardous areas and supplies information pertinent to canoe trips. It also offers courses on boating safety and on pleasure boating.

Most of the Commission's physical resources and facilities are related to recreational fishing. In addition to the community ponds and fish hatcheries, the Commission operates visitor centers and a research station, maintains or helps to maintain many State lakes, impoundments and waterways, and provides access points, piers and launching ramps.

The major objective of the Fish Commission has been to improve the quality of fishing and boating in Pennsylvania. Since this objective is so closely related to water quality, the Commission, in the future, will be working even more closely with other State and Federal agencies with this same commitment. The Commission is also committed to other aspects of stream and river rehabilitation and in the past has provided technical assistance for this purpose. Ultimately, the Commission intends to provide each resident with a place to fish and boat within 25 miles of his home.

Pennsylvania Game Commission

The Pennsylvania Game Commission was established by law to "protect, propagate, manage, and

preserve the game, fur-bearing animals, and protected birds"[5] of the Commonwealth. As both a conservation and a recreation agency, the Commission has ensured maximum opportunity without disturbing wildlife balance by regulating hunting and by adhering to sound resource management practices.

Through the cooperative arrangements with farmers, foresters and the Federal Government, and through management of the State game lands and waterfowl management areas, the Commission provides over six million acres of land for public use. Moreover, the Commission operates game farms, refuges, and a tree and shrub nursery.

In its long-range recreation plan, *A Look Ahead*, the Game Commission articulates the importance of extending hunting areas through acquiring more land, including marginal land needing environmental reclamation, and through expanding its cooperative program with private landowners. The plan also states the need for more roads, parking areas and trails to improve access to hunting areas. The plan further proposes the optimization of game populations through habitat improvement, continuation of its programs to protect the endangered species, and expansion of its educational and training programs.

As a public service, the Game Commission conducts an active hunter safety program and presents lectures on wildlife conservation and hunting. The Commission operates a large film library and its hunting magazine "Game News" is published monthly.

Pennsylvania Historical and Museum Commission

The Pennsylvania Historical and Museum Commission is concerned primarily with preserving and displaying sites and items of historical and cultural interest. The Commission maintains and operates museums and historical sites and properties, visitor orientation centers and at some sites, auxiliary facilities, such as picnic or camping grounds. Landmarks are made both informative and entertaining through careful research, planning and display techniques.

In addition to individual site planning, the Commission also has prepared *A Statewide Plan for Historic Preservation*. The highlights of this plan propose a statewide system of museums reflecting each region's economic and social development and the completion of Pennsylvania's "Trail of History."

The Commission is also responsible for the preservation of public records. It publishes brochures, pamphlets and assists and supports public and private historical projects at the local level.

Other State Programs

The *Youth Conservation Corps* is a federally funded and, in part, operated program. In essence the program gives students between the ages of 15 and 18 the opportunity to work, earn and learn together during the summer by taking on projects which enhance the natural resources of Pennsylvania. Both a resident program and a daily program are offered. In Pennsylvania the Federal portion of the program is operated by the U.S. Forest Service in the Allegheny National Forest; by the National Park Service at the Allegheny Portage Railroad, the Gettysburg Battlefield, and the Delaware Water Gap National Recreation Area; and by the U.S. Fish and Wildlife Service at the Lamar National Fish Hatchery.

The State portion of the program is coordinated by the Department of Environmental Resources, Office of Resources Management, and is operated on both State park and State forest land.

Pennsylvania has had a major problem with this program because the 80-20 Federal-State match specified in the original legislation has been reduced to a 50-50 match by the Office of Management and Budget. Consequently, the number of participating students has had to be restricted. In 1974, 382 youths were enrolled in the program. Participants are selected randomly from names of students submitted by school guidance counselors.

Neighborhood Youth Corps—The principal objective of this program is to introduce young people to the "world of work" and to help them remain in school. Candidates are recruited by Welfare Case Workers or Bureau of Employment Security Counselors after which they are referred to District YMCA's for job orientation. The work includes road and trail maintenance, forest improvement and protection, stream improvement, as well as development of camping and recreation facilities. In 1974, 700 high school students were employed at 34 work sites on State park and forest lands. The program is funded through Federal anti-poverty funds and through the U.S. Department of Labor.

Operation Mainstream is a community-related work-training program funded by the U.S. Department of Labor. The program combines work experience with education and counseling to increase the employability of the enrollees. It provides State, local, and private and public non-profit agencies with enrollees for jobs which will benefit the physical and social environment of the community and which normally would not have been practical because of lack of employees and or funds. Eligible applicants must have a limited family income, must be unemployed or under-employed, and must be at least 55 years old. The ultimate objective of this program is to provide enrollees with a work opportunity leading to a permanent job.

The Green Thumb program provides a public service employment program for older and retired rural people

whose incomes are less than $2,400. Workers are usually on the job 3 days a week and earn as much as $1,600 a year. Green Thumb workers carry out such projects as landscaping, brush clearing and construction of recreation areas and hiking trails. This program is sponsored by the National Farmers Union.

LOCAL GOVERNMENT RESPONSIBILITIES

History

Community concern for reserving and developing areas for recreational use evolved in response to the problems of urbanization. In the original plan for Philadelphia, William Penn had designated areas for municipal parks, but not until 1867 was a formal commission, the Fairmount Park Commission, established to hold title and administer large tracts of park land. Several years later Reading had developed a city park plan and by 1900 Harrisburg had begun to develop a park system. However, these early years were basically landscape parks for strolling or picnicking and did not solve the problem of providing play areas close to home for children.

The absence of play lots was dramatically emphasized in Philadelphia in 1895 when the installation of a trolley system resulted in several accidents involving children. Citizen concern was clear and, in response, a school playground system, and a civic playground association were initiated. Pittsburgh, Lancaster and Reading promptly followed suit. By 1911, over twenty communities in Pennsylvania were providing playground programs.

The initial legal authority for local governments in Pennsylvania to provide support for recreation was based on the general welfare powers granted to municipalities in the Commonwealth's constitution. As tax supported recreation services began to be recognized as a government function, the need for more specific legal authorization became apparent. In June of 1911, the General Assembly approved legislation authorizing first-class cities to establish recreation departments and, eight years later, approved Act 322 which provided the first broad authorization for municipalities to establish recreation programs. This act empowered second and third class cities, boroughs and counties to acquire, maintain and operate playgrounds, playfields, gymnasiums, public baths, swimming pools, and indoor recreation centers. This legislation also authorized school districts to share responsibility in maintaining and operating these facilities; it also authorized issuance of bonds and levying of taxes for support of recreational services. The provisions of this act were extended to townships in 1921.

During the 1920's, recreational facilities and programs were expanded in number and scope not only because of the general economic prosperity but because Americans were becoming more and more recreation and sport conscious. The Twenties was the decade of Babe Ruth and Bobby Jones and the beginning of school sponsored recreation programs. Counties began to develop parks and cities expanded their playground programs. During this decade the necessity of government involvement in recreation became firmly implanted.

During the depression, as local tax sources withered, public recreation budgets were reduced or dropped. However, two major Federal programs—the Federal Works Progress Administration and the Civilian Conservation Corps contributed significantly to the development of local recreation programs, park lands and facilities, many of which still exist. Not so visible, however, is the role that WPA played in providing organized recreation programs. Through its Education and Recreation Program, unemployed workers were hired to conduct organized physical, social and cultural recreational programs. In addition to program development and facility construction, the staff of the Education and Recreation Program of WPA for Pennsylvania prepared *A Digest of Pennsylvania Enabling Legislation Pertaining to Public Recreation.* This digest, prepared in cooperation with the State Planning Board, represents one of the early cooperative efforts of the Federal Government and the Commonwealth to provide technical assistance to local governments.

Toward the end of the depression years, the first attempt was made to achieve statewide coordination of recreation programs. Through the initiative of the State Planning Board and the WPA, an unofficial body called the Pennsylvania Recreation Council was organized in the fall of 1938. While this group was concerned primarily with matters affecting State parks and forests, a subcommittee was created in 1939 to consider problems at the community level. However, the activities of the Council were suspended by the advent of World War II.

During the war years approximately forty military installations were in operation throughout the Commonwealth and municipal recreation activities played a major role in maintaining morale for personnel at these installations. The USO, which operated 139 agencies in 63 Pennsylvania communities, provided the leadership for coordinating community recreation efforts for servicemen and women.

After the war, mounting pressure for expansion of community recreation programs created a new need for

professionally trained and qualified recreation personnel. In response, in the fall of 1946, Pennsylvania State University established undergraduate and graduate degree programs in recreation.

In an effort to promote and coordinate community recreation on a statewide basis, the First Annual Pennsylvania Recreation Conference was held on the Pennsylvania State University campus in May of 1948. This conference was sponsored by the Pennsylvania Recreation Society (subsequently renamed the Pennsylvania Recreation and Parks Society in 1962), the School of Physical Education and Athletics, and the Extension Services of the Pennsylvania State University. It emphasized the importance of the function of local governments in recreation.

The State Planning Board, recognizing the growing demand for governmental initiative in recreation, appointed the first full-time recreation consultant to its staff in May of 1948 and two years later was required to add an additional one.

During the post-war years, school districts assumed a major role in providing community recreation services. This was attributable mainly to the initiation in 1943 of a separate reimbursement program for recreation leadership. Prior to this program, the recreation provisions of the State School Code had allowed for very little in enhancing community recreation. By 1948, 350 school districts, receiving reimbursements averaging two-thirds of cost, were providing full or part-time recreation programs. In 1965, this reimbursement program was replaced by a single subsidy program in which recreation, through the school district general fund account, became one of several reimbursable programs.

During the 1950's, recreation and leisure services became a vital force in the economy of the Commonwealth due to technological innovation stemming from World War II. Pennsylvanians had more leisure time, more money and greater mobility with the result that demand for recreational facilities of all kinds burgeoned. Consequently, the problem of planning for recreation became not just a state and local problem, but a national issue as well. In 1958, Congress recognized the need for an intensive long-range nationwide study to determine what the outdoor recreation needs of the American people would be over the next 40 years and what actions would be necessary to meet those needs. Therefore, on June 28th of that year, Congress established the Outdoor Recreation Resources Review Commission (ORRRC). Based on the Commission's recommendation, the Bureau of Outdoor Recreation was established within the Department of the Interior in 1962 and, three years later, the Land and Water Conservation Fund, administered by the Bureau, was created to help finance land acquisition and development.

Influenced by the ORRRC reports, Pennsylvania initiated a large scale open space and acquisition program in 1964. This program, known as PROJECT 70, was approved by referendum in 1963 and provided seventy million dollars to State agencies and local governments. Of this $70 million program, $20 million was allocated for matching grants to regional, county and local governments for park, recreation and open space acquistion. The response to the program by municipalities was overwhelming. Over 400 projects occupying 163,000 acres of land were funded. Almost 350 local governments purchased 50,000 acres of this total.

This was just the beginning of State recreation assistance to local governments. In 1966, the Department of Community Affairs was established to assist local governments and, within the Department, a Division of Recreation and Conservation was established to aid and assist local governments by providing assistance in acquiring and developing land for recreational use.

In 1967, the voters of the Commonwealth embarked on a second major recreation program by approving the $500 million Conservation Bond Program. Two hundred million dollars of this PROJECT 500 money was allocated for recreational acquisitions and developments. The Department of Community Affairs was allocated $75 million for assistance to local governments for the development of parks and other recreation projects on a matching basis.

Current Responsibilities

The changes in social attitudes and living patterns which occurred in the Sixties are producing a profound impact on the municipalities which have been providing recreation programs in the Seventies. The shifts in population will determine, to a large degree, the challenges which local governments will be facing in providing recreation services in the future.

Although local governments have only those powers specifically delegated to them by the states, in Pennsylvania, these powers were expanded in the Home Rule Charter and Optional Plans Law (Act 62 of 1972), which grants municipalities the right to organize their administrative structures as they see fit to best meet the complex demands confronting them. Therefore, in effect, home rule shifts the responsibility for local government from the State legislature to the municipalities themselves.

The overriding factor concerning the role which the community performs, or should perform, is that local government, being closest to the people, should be able to recognize and respond to the needs of its residents and its neighborhoods much more efficiently than the State

or Federal Government. Therefore, local government has the basic responsibility of providing day-to-day recreation opportunities for their citizens on a year-round basis. Furthermore, this responsibility entails not only the provision of adequate recreation areas, facilities, and services but includes, as well, the conservation of natural beauty and the development of open space amenities in the urban setting.

In its role of advising and assisting local governments, the Department of Community Affairs stresses the need for local officials to plan and act within the context of local needs. The following are considered to be the basic elements of local government responsibility:

1. *Planning*—Planning should be addressed to immediate needs as well as long-range objectives. A statement of philosophy, goals and objectives must be developed and reviewed regularly by local government officials. Social planning should be included in the planning process. Community organization, administration, programs, finance, personnel and physical resources must all be dealt with in recreation planning.
2. *Financing*—The development of a long-range financial plan with an annual capital budget would improve the progressive and orderly development of recreational areas and facilities. However, in most communities recreation is not high on the financial priority list and, consequently, has suffered as a local government function. It is the responsibility of local officials to research ways of financing recreational areas and parks. In general, all classes of local government in Pennsylvania are given power to:
   (a) Pay the cost of recreation programs from the treasury.
   (b) Make annual appropriations and levy taxes for recreation purposes.
   (c) Issue bonds for recreation purposes. Proceeds from bond issues may be used for the acquisition of land, buildings, facilities and equipment but not for general operation or maintenance, which must come from current funds.
   (d) Assess benefits and damage on property owners.
   (e) Solicitation of contributions from organizations.
3. *Providing*—It is the responsibility of local officials to provide through acquisition and development sufficient and practical recreation areas and parks. It is not only a responsibility to provide facilities but also programs, personnel, maintenance, and financial resources.
4. *Administering*—In order to administer effectively, the organizational structure must be flexible and functional. Qualified persons must be employed to assist local officials in providing recreation and park services.
5. *Programming*—It is the responsibility of local government to program a diversified range of recreation activities for all people—including both sexes, all ages and the handicapped. Personnel must be employed to lead these activities.
6. *Maintaining*—Once an area is acquired, developed and programmed, it naturally must be maintained. Maintenance is an expensive but necessary operation. It is the responsibility of local government to provide adequate funds and equipment for the proper maintenance of all recreational areas and parks.

SCHOOL RESPONSIBILITIES

The Department of Education subscribes to the concept that "recreation is an essential part of the education program and as such has as its purpose the development and expansion of attitudes, skills, insights and resources which will benefit the individual both in his leisure and his work."

In practice this concept has fostered five major responsibilities in recreation for school districts:

1. Providing professionally supervised programs which develop recreation skills during and after school hours.

2. Making school recreation facilities available for community use.

3. Providing professional leadership for community recreation programming and trained personnel for supervising activities.

4. Providing community recreation programs for groups, such as the very young, elderly, or the handicapped, for whom there is not adequate opportunity.

5. Cooperating with other agencies to improve the quality of scholastic recreational programs.

In short, the school district shares responsibility with local government in responding to the community recreation needs not only of school children during school hours, but to the entire population year-round.

QUASI-PUBLIC GROUP PROGRAMS

Quasi-public supported recreation refers to non-profit organizations, clubs, associations, etc., that sponsor recreation programs such as American Legion baseball, industrial league slow pitch softball, midget football, or Little League baseball. This category also includes playground associations, church sponsored activities such as summer camps, YMCA programs, and related kinds of programs.

The degree of involvement of this sector varies greatly from community to community, but collectively the contribution to organized forms of recreational activity is great.

PRIVATE ENTERPRISE

Private enterprise does not have a mandated responsibility in recreation. To survive, an enterprise must remain solvent so this sector provides what is profitable. Generally, however, there is very little difference in the kinds of recreational facilities provided by the private and by the governmental sectors. According to the Outdoor Recreation Resources Review Commission study of 1965, the most popular activities at private outdoor recreation areas were in ranked order: swimming, fishing, hunting, boating, skiing, riding, picnicking, camping, sailing and racing, water skiing, hiking, and mountain climbing.[6] Most of these activities are also accommodated at State parks and forests.

There are two differences which are worth mentioning. Historically, private enterprise has been quicker to respond to a rapid increase or new demand for a specific kind of recreational facility. For example, the private profit sector currently has five and a half times more miles of biking trails than all government sources combined. Similarly, private enterprises will also respond to recreational fads if it judges the duration will be long enough to make a profit. However, this part of the industry is fractional.

Since government and private enterprise are, for the most part, engaged in providing similar recreational facilities, their related efforts should be complementary.

"For maximum development, public recreation programs should complement rather than compete with private recreation enterprises; should be compatible rather than combatant; and each should operate in its own area of responsibility,"[7] Government, then has an explicit responsibility to the private recreation sector. When surveyed as to what the State should be doing to help the private recreation and tourist industry, most entrepreneurs cited the following: the clean-up and abatement of pollution of the region's natural resources and protection of its scenic beauty; the construction and improvement of access roads and highways; the construction of water recreation areas and additional State parks; provision and maintenance of information centers on the region's major highways; and publicity of the (region's) recreational opportunities.[8]

DELINEATION OF RESPONSIBILITIES

In the preceding section on the role of private enterprise it was stated that there is very little difference in the kinds of facilities and services provided by the public and private sectors. Both try to provide what is needed and, therefore, in the limited sense, both try to serve the public interest.

The only discordant note in the present arrangement is the anachronistic view that government should provide only that which private enterprise cannot or will not. However, this brief review of government responsibilities, particularly at the State and Federal levels, if nothing else, has demonstrated that to a large degree the development of recreational facilities has evolved as a product of the commitment to conserve natural resources. Since natural areas are being preserved it would be foolish not to take advantage of their recreational possibilities. Similarly, local government responsibilities in recreation have evolved in response to conditions of overcrowding and physical ugliness.

The differences among the responsibilities of the various levels of government are more discernible. In simplest terms government programs respond within the scope of jurisdictional areas. Therefore, federal recreation sites, such as the Allegheny National Forest, are resources of national significance, serving people from many states, while the tot lot, which is provided by local government, is provided for children in one of its neighborhoods.

It has also been pointed out that all levels of government, except the local, provide technical and or financial assistance to lower levels. Therefore, the governmental heirarchy, in descending order, has the responsibility of advocating and helping to provide recreational programs which it deems to be valuable to the public.

There are, of course, many exceptions to general

sketches. The intention has not been to delineate guidelines, but to attempt a brief description of the framework in which recreation services and facilities have been provided. Consequently, the concern has been with practice rather than theory.

Footnotes

1. Federal Outdoor Recreation Program, p. 67, with revision of Item #7 added as a result of the Land and Water Conservation Act of 1965.

2. Additional Federal function resulting from the passage of the Land and Water Conservation Act of 1965.

3. The Frederick Burk Foundation for Education, San Francisco State College, *Federal Agencies and Outdoor Recreation,* prepared for the Outdoor Recreation Resources Review Commission (Washington, D.C.: 1962), p. 1.

4. "Report of the State Services Committee of the Pennsylvania Recreation and Park Society in 1966", p. 6, quoted in Charles E. Hartsoe, *History of Municipal Recreation in Pennsylvania,* College of Health, Physical Education and Recreation, Pennsylvania State University (University Park, Pennsylvania: 1970) p. 31.

5. Bureau of Outdoor Recreation, U.S. Department of the Interior, *Federal Outdoor Recreation Program* (Washington, D.C.: Government Printing Office, 1967), p. 27.

6. *Private Outdoor Recreation Facilities, op. cit.,* indicated on photographs throughout the report.

7. U.S. Department of Agriculture, Economic Research Service, *Private Outdoor Recreation Facilities,* report to the Outdoor Recreation Resources Review Commission (Washington, D.C.; Government Printing Office, 1962), p. xvii.

8. Northwestern Pennsylvania Regional Planning and Development Commission, *A Study of Private Outdoor Recreation in the Northwestern Pennsylvania Region* (Oil City, Pennsylvania: 1969), p. 16.

chapter IV

Supply

Chapter IV

SUPPLY OF RECREATION RESOURCES IN PENNSYLVANIA

Purpose of the Inventory

In the preceding chapter, a look was taken at how recreation opportunities are delivered in Pennsylvania. The purpose of this chapter is to quantify the supply by identifying what exists, how much, and where.

Objectives of the Inventory

The inventory process was designed to achieve three objectives. The first was to incorporate inventory data collected in 1968. The second was to computerize the data processing to avoid the time and expense involved in manual tabulation. The computer design has the flexibility to assimilate information about all kinds of recreation facilities and areas and ultimately will have the capacity to permit collection of data for indoor facilities. The third objective was to design a system which allowed continual updating as part of the Option H planning process.

The inventory form and the computer programs were designed by the Office of State Planning and Development. Data summaries can be withdrawn at almost any level of aggregation and individual site data can also be retrieved for reference or updating. The survey is current as of June 1974.

Data Collection

Collection of the inventory data was done cooperatively by the Commonwealth agencies with recreation responsibilities. The Pennsylvania Department of Environmental Resources inventoried State forests and parks. The Bureau of Soil and Water Conservation, within the Department of Environmental Resources, inventoried private recreation areas and facilities through the county conservation district offices. The Pennsylvania Department of Community Affairs, with the help of a consultant and local officials, provided the data for local government-owned facilities; the Pennsylvania Game Commission inventoried State game land, reserves, management areas, safety zone areas, and farm and forest cooperative acreage; and the Pennsylvania Fish Commission inventoried the fishing and boating resources of the Commonwealth. The Pennsylvania Historical and Museum Commission inventoried public and private historical sites; the Pennsylvania Department of Transportation inventoried all roadside rests and scenic overlooks; and the Pennsylvania Department of Public Welfare supplied information concerning recreation facilities at State Institutions for the Mentally Ill and Retarded. The Office of State Planning and Development supplied the inventory information for federally-administered resources and facilities.

SUPPLY OF RECREATION ACREAGE

Of the Commonwealth's total acreage of 28.8 million, approximately ten million are available for some kind of outdoor recreational activity. The principal owners of recreation resources in Pennsylvania are the private sector, which controls 56 percent, and the State, which manages 35 percent. The Federal Government owns 6.4 percent and local government, 1.2 percent of the ten million acres.

Of the total State's 35 percent, State forests comprise 19 percent; game lands, 11.5 percent; parks, 2.8 percent; and others such as Historical and Museum properties, roadside rests and scenic overlooks, 1.7 percent. The majority of this is located in the mountainous, sparsely-populated regions, west of the Susquehanna River. The predominant concentrations of local government and privately-owned recreation facilities and resources are in the greater metropolitan areas of Pittsburgh and Philadelphia (Planning Regions 10 and 1, see Map 10), the Greater Capital Area including Harrisburg, York, Lancaster, and Lebanon (Region 6), and the Wyoming Valley and Pocono areas (Region 3). The regional distribution of recreation acreage by ownership is presented in Table 1.

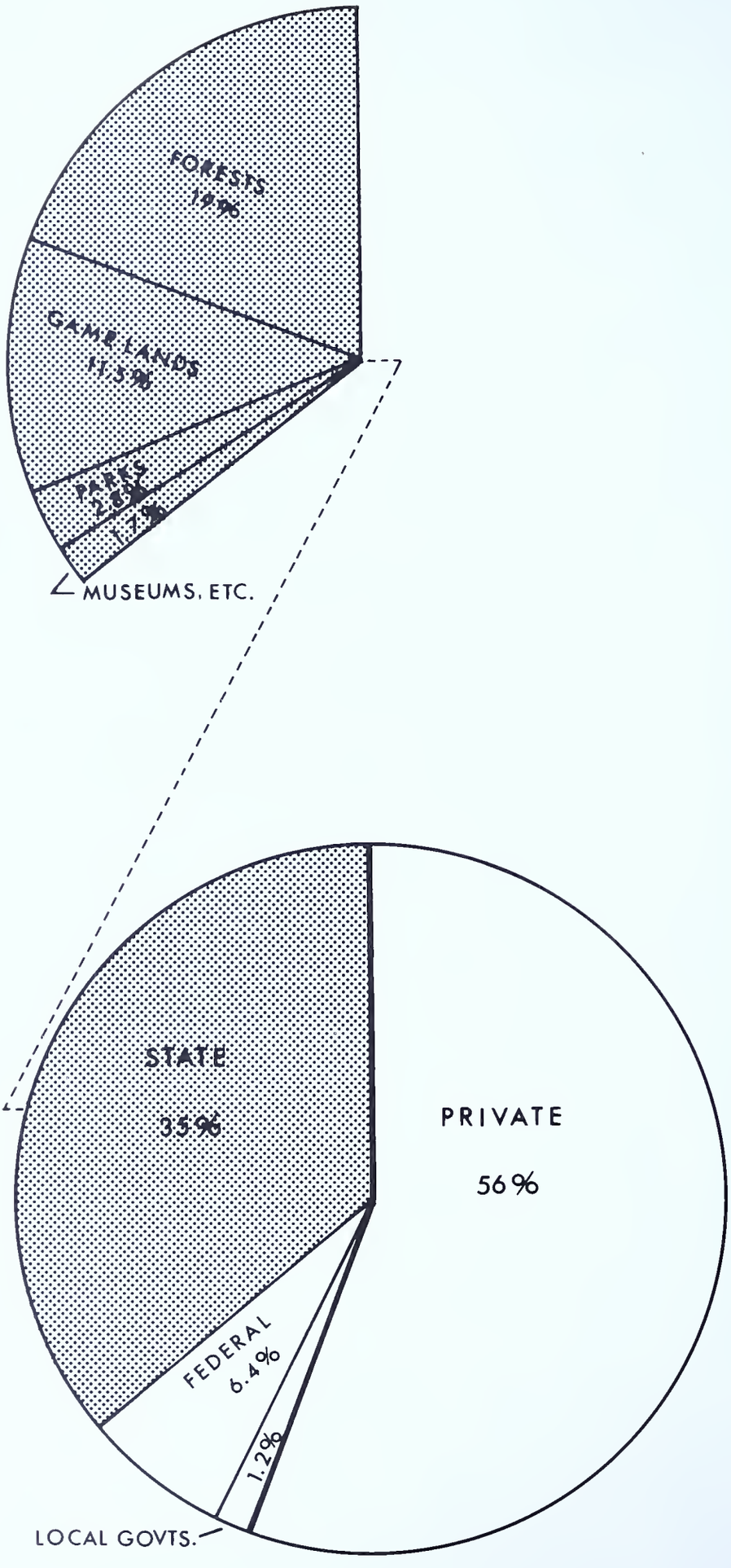

FORESTS
19%
GAME LANDS
11.3%
PARKS
2.8%
1.7%
MUSEUMS, ETC.
STATE
35%
PRIVATE
56%
FEDERAL
6.4%
1.2%
LOCAL GOVTS.

TABLE 1

REGIONAL SUMMARY OF THE SUPPLY OF OUTDOOR RECREATION ACREAGE IN PENNSYLVANIA BY OWNERSHIP

REGIONS	FEDERAL	STATE					LOCAL
		Forest	Park	Game	Other*	Total	Public
1	393.2	0	16,507.0	5,732.4	11,410.3	33,649.7	28,572.4
2	848.0	828.0	14,107.0	23,378.1	2,539.8	40,852.9	10,054.3
3	25,462.1	85,422.0	59,853.0	159,051.6	6,941.7	311,268.3	13,991.7
4	3,790.0	189,493.0	4,313.0	163,532.0	4,273.5	361,611.5	2,695.1
5	7,270.0	731,645.0	16,500.0	156,188.1	74,460.7	978,793.8	3,931.6
6	5,331.0	141,446.0	12,287.0	96,897.0	8,145.3	258,775.3	8,597.1
7	21,800.0	152,591.0	23,957.0	173,585.3	19,263.4	369,396.7	5,851.3
8	248,195.0	563,460.0	12,029.0	172,575.5	31,073.7	779,138.2	2,119.9
9	300,276.0	2,253.0	50,601.0	117,619.5	4,002.9	174,476.4	10,860.4
10	23,317.3	20,527.0	69,190.0	70,409.8	13,740.8	173,867.6	40,325.9
Total	636,682.6	1,887,665.0	279,344.0	1,138,969.3	175,852.1	3,481,830.4	126,999.7

* Includes all other State-owned recreation land such as Historical and Museum Commission properties, Institutions for the Mentally Ill and Retarded, roadside rests and scenic overlooks.

REGIONS	SCHOOLS			PRIVATE			TOTAL
	Public	Private	Total	Profit	Non-Profit	Total	
1	4,760.0	841.4	5,601.4	80,542.5	50,166.5	130,709.0	198,925.7
2	1,429.3	124.1	1,553.4	181,037.8	8,957.0	189,994.8	243,303.4
3	1,123.7	257.0	1,380.7	336,506.4	56,283.9	392,790.3	744,893.1
4	668.6	101.0	769.6	348,853.5	16,309.9	365,163.4	734,029.6
5	1,672.0	0	1,672.0	605,875.1	9,533.7	615,408.8	1,607,076.2
6	3,569.8	44.2	3,614.0	770,754.5	37,408.7	808,163.2	1,084,480.6
7	926.6	0	926.6	755,007.2	13,786.0	768,793.2	1,166,767.8
8	398.4	1.0	399.4	486,366.8	16,891.7	503,258.5	1,533,111.0
9	1,382.2	6.2	1,388.4	1,125,618.3	32,537.7	1,158,156.0	1,645,157.2
10	3,898.8	297.8	4,196.6	674,569.7	33,021.9	707,591.6	949,299.0
Total	19,829.4	1,672.7	21,502.1	5,365,131.8	274,897.0	5,640,028.8	9,907,043.6

Source: Office of State Planning and Development Recreation Inventory

FEDERAL RESOURCES

The Federal Government manages thirty-three areas in Pennsylvania which provide recreation opportunities. These areas cover 636,682 acres of land and water of which over three-quarters are contained in the Allegheny National Forest (Map 1).

U.S. Forest Service, U.S. Department of Agriculture

The 498,925-acre Allegheny National Forest is the largest governmentally-controlled natural resource site in Pennsylvania. It is situated in the northwestern part of the State, spreading through parts of four counties and two planning regions and is accessible to outdoor enthusiasts of both the East Coast and the Great Lakes metropolitan complexes.

The forest contains 108 miles of hiking trails; 739 tent, trailer and primitive camping sites; 561 miles of streams and 7,752 acres of lakes for fishing, boating, swimming, and other water sports; and 581 picnic tables. The forest also accommodates cross-country skiing and snowshoeing, hunting, pleasure driving, horseback riding, and bicycling. Sportsfields, playgrounds, parks, and interpretive and information sites are maintained by the Forest Service.

Soil Conservation Service, U.S. Department of Agriculture

Although the Soil Conservation Service does not own or manage land in Pennsylvania, it does, through the Small Watershed Program (Public Law 566), plan and construct multi-purpose dams which are used for recreational purposes and, in some areas, develops lands adjacent to dams for picnicking, camping, and parking. When projects are completed they are turned over to the local sponsor for management.

Of the 105 dam projects which have been completed or for which plans are being developed, twenty-six in sixteen different counties accommodate or will accommodate recreationists. Seventeen of these multi-purpose dams covering 4,957 acres have been completed and at four of these the SCS is helping the local sponsor develop auxiliary recreation facilities, such as picnic areas and campsites. Of the other nine dams approaching completion, all but one will provide recreation facilities. (Map 2).

Corps of Engineers, U.S. Department of the Army

In Pennsylvania there are twenty-two Corps multi-purpose reservoirs totalling 65,702 surface acres of water. Of these, eight adjoin State parks and two are in the Allegheny National Forest (Map 1).

The most recently completed reservoir, Raystown Lake, is adjacent to Trough Creek State Park, and the Alvin R. Bush Dam adjoins Kettle Creek State Park. The Beltzville State Park, in whose outcroppings are found fossils of early marine life, is located next to Beltzville State Park. Crooked Creek Lake adjoins Crooked Creek State Park; Curwensville Lake, Curwensville State Park; the Foster Joseph Sayers Dam, Bald Eagle State Park; Prompton Lake, Prompton State Park; and the East Branch Clarion River Lake is adjacent to Elk State Park.

The two reservoirs located within the Allegheny National Forest are the Kinzua Dam (Allegheny Reservoir) and Tionesta Lake. Conemaugh Lake is located in Indiana and Westmoreland Counties and the Youghiogheny River Reservoir in Fayette County.

National Park Service, U.S. Department of the Interior

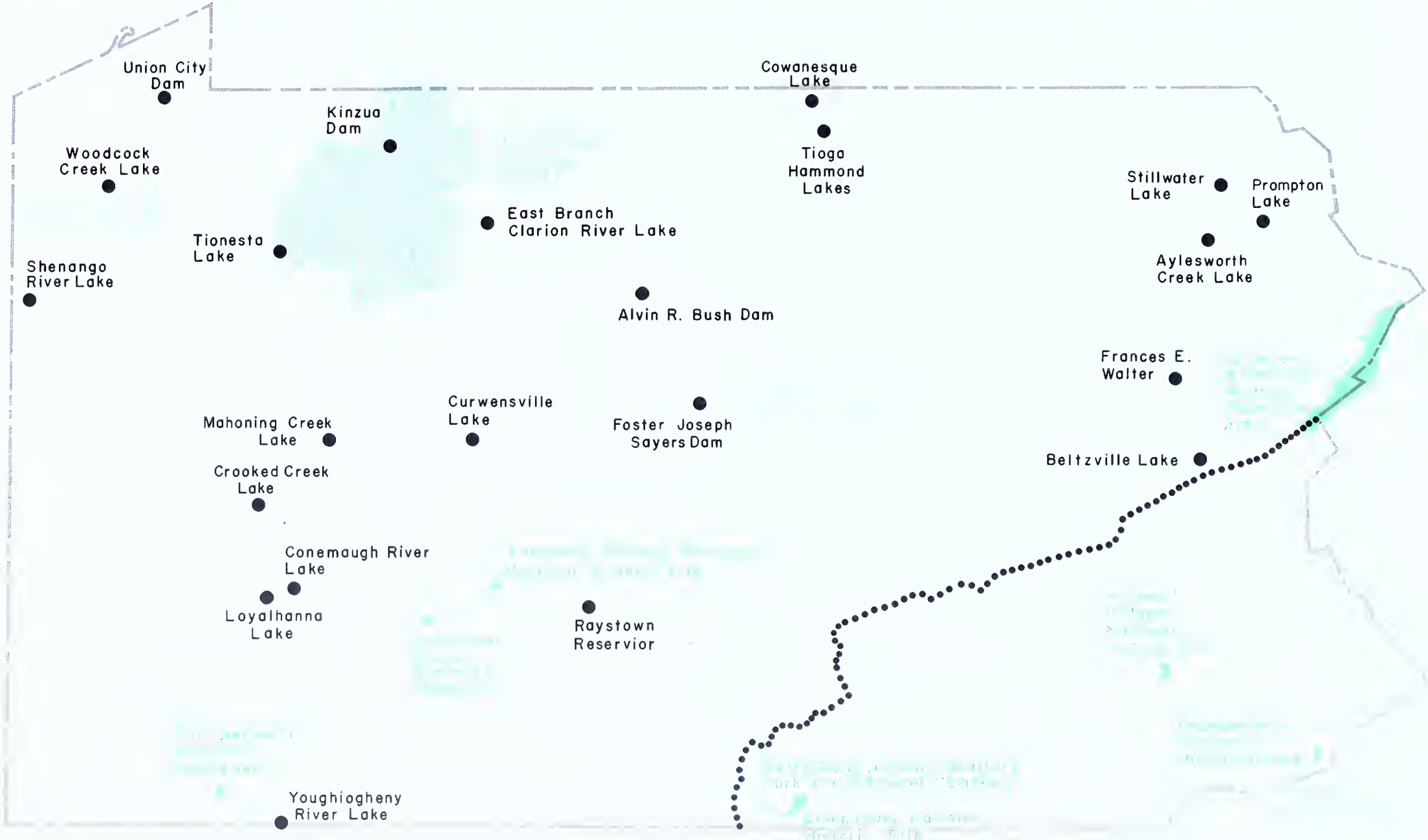
The National Park Service administers seven national historical parks and sites and one national recreation area in Pennsylvania (Map 1). Total acreage of these lands is 28,066.

The Delaware Water Gap National Recreation Area was authorized by Congress in 1962 and was being developed in conjunction with the Corps of Engineers "Tock's Island Reservoir Project". In July 1975, the Delaware River Basin Commission withdrew its support for the "Tock's Island Dam". It would appear that Congress will not appropriate additional funds for the construction of the Dam. No immediate resolution of the development of the Delaware Water Gap National Recreation Area is expected because of the complex issues involved and the need to re-evaluate the potential of the area without the dam project.

At the present time 47,720 acres or about 70 percent of the authorized area, which is located along both banks of the Delaware River between Matamoras and East Stroudsburg, have been acquired. Of this, 19,110 acres are in Pennsylvania. Of this last figure, 10,877 acres have been acquired for the recreation area and 8,233 acres are for the impoundment area.

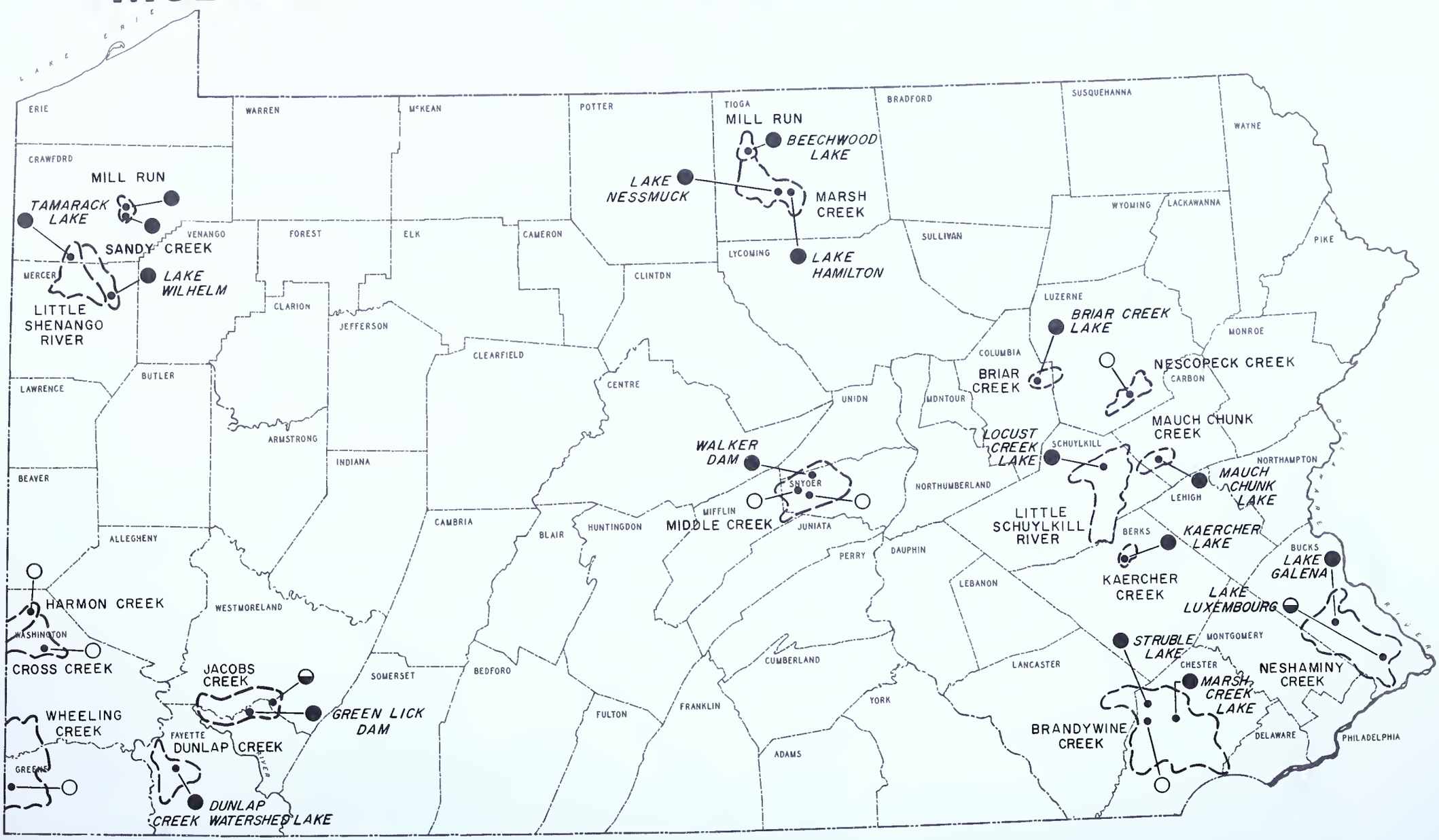
Although only limited development has taken place on the Delaware Water Gap National Recreation Area, some of these public lands are available for public use. Facilities which were developed prior to Federal acquisition are being used by several educational institutions

FEDERAL RECREATION AREAS AND FACILITIES



MAP I

SOIL CONSERVATION SERVICE
MULTIPURPOSE WATERSHED STRUCTURES



BOUNDARY

COMPLETED

UNDER CONSTRUCTION

PROPOSED

MAP 2

as environmental education centers. There are eleven recreational day use areas on the Delaware River between Milford and Stroudsburg which offer picnicking and boating, fishing, and other water-oriented activities. The majority of these recreation areas are on the Pennsylvania side of the river, whereas areas of historical significance which have been identified for preservation are located on the New Jersey side.

The seven National Historical Parks and Sites in Pennsylvania administered by the National Park Service are: Allegheny Portage Railroad in Blair County, Hopewell Village in Berks County, Independence Mall in Philadelphia, the Gettysburg Battlefield in Adams County, the Johnstown Flood Memorial in Blair County, the Fort Necessity Battlefield in Fayette County, and the Eisenhower Farm in Adams County.

U.S. Fish and Wildlife Service, U.S. Department of the Interior

The Fish and Wildlife Service manages 5,160 acres at the Lamar National Fish Hatchery in Clinton County and the Erie Wildlife Refuge in Crawford County.

In addition, the Service also manages the 250-acre Tinicum National Environmental Center at Philadelphia. After the Service had acquired 105 acres, it was granted the balance by the city. An environmental education center is being planned along with the acquisition of 950 additional acres.

STATE RESOURCES

Next to the private sector, the State is the largest single owner and developer of recreation land and facilities in the Commonwealth with approximately 3,481,830 acres of land (Table 1). There are six Commonwealth agencies responsible for providing these recreation lands and facilities. Traditionally, the scope of their services, like that of the Federal Government, centers primarily around those recreation activities which are resource oriented. The largest supplier of natural resources in the Department of Environmental Resources, which manages over two million acres of publicly-owned land.

Pennsylvania Department of Environmental Resources

Through its Bureaus of Forestry and State Parks, the Department of Environmental Resources manages 2,167,009 acres of land. The State forest land (Map 3) now totals 1,887,665 acres (Table 1) which are available for low intensity kinds of recreation like hunting, fishing, hiking, picnicking, and trail snowmobiling.

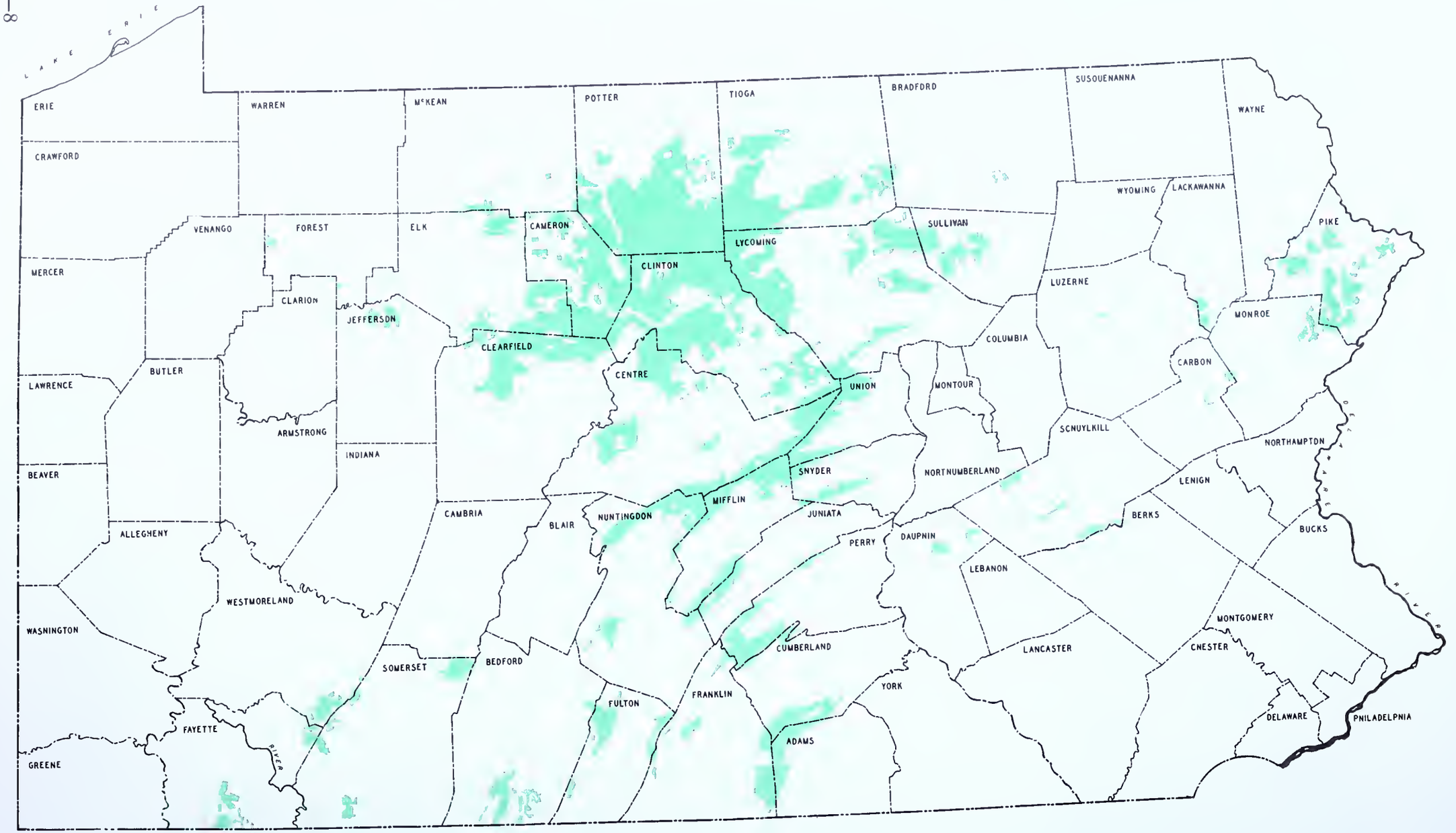
The Commonwealth's 90 State parks accommodate higher intensity kinds of resource oriented recreation activity like swimming, boating, fishing, camping, hiking, and horseback riding. At the present time, the Bureau of State Parks is in the process of developing or acquiring land for 15 additional parks (Map 4). The entire park system totals 279,344 acres with parks ranging in size from the 22,420-acre Pymatuning State Park in Crawford County to the 19-acre historical park at Buchanan's Birthplace in Franklin County.

Pennsylvania Game Commission

The Pennsylvania Game Commission currently manages 1,138,969 acres of land and water (Map 5). The Commission operates seven game farms (3,430 acres) and 34,610 acres which are used for waterfowl management. In addition to this State-owned land, the Game Commission's cooperative agreement program with the Federal Government and private land holders makes 5,065,404 acres of farm and forest land available to the public (Table 2).

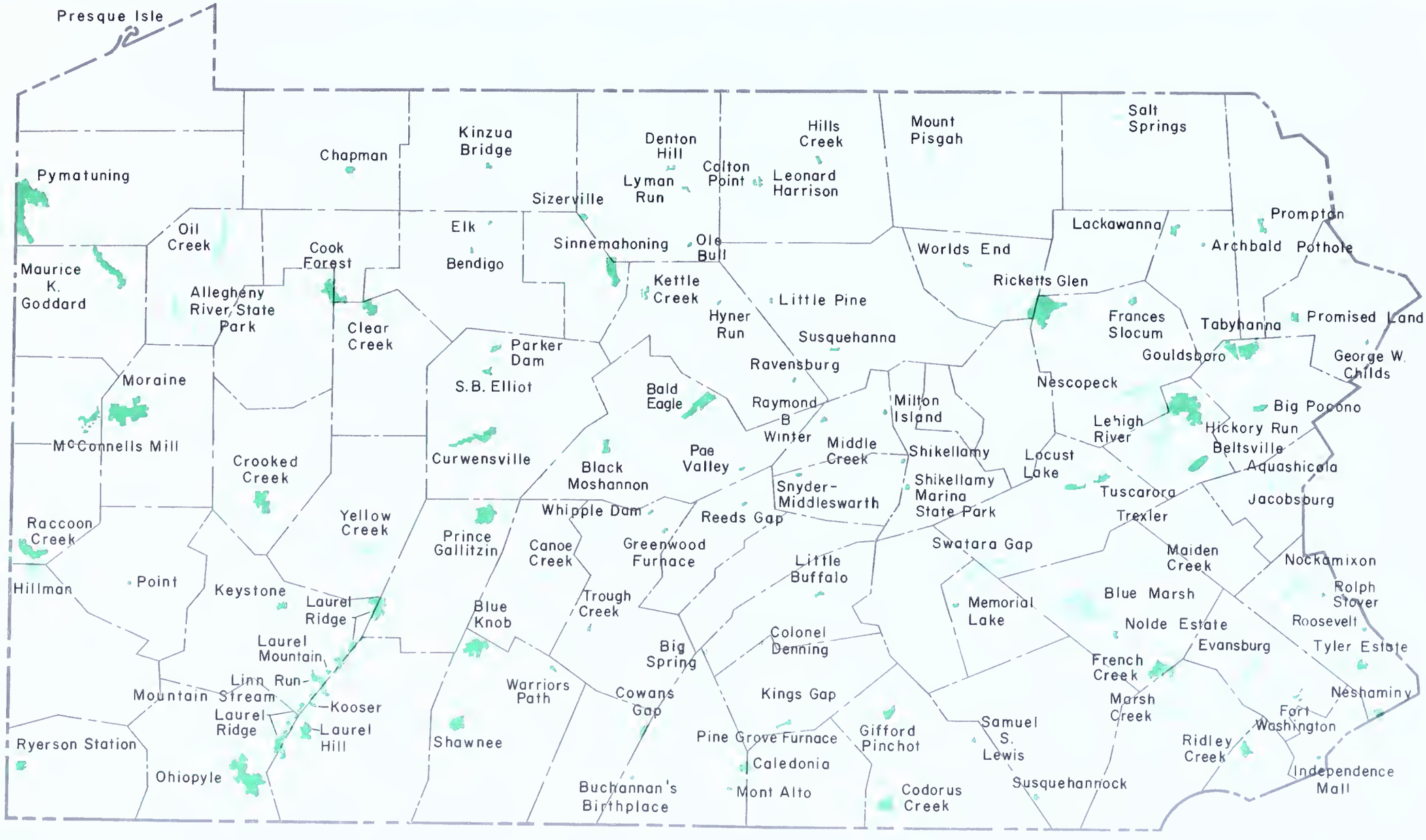
All of this land, with the exception of the protective areas immediately surrounding farm buildings, is available for hunting, hiking, and other related activities.

STATE FOREST LANDS



MAP 3

STATE PARKS



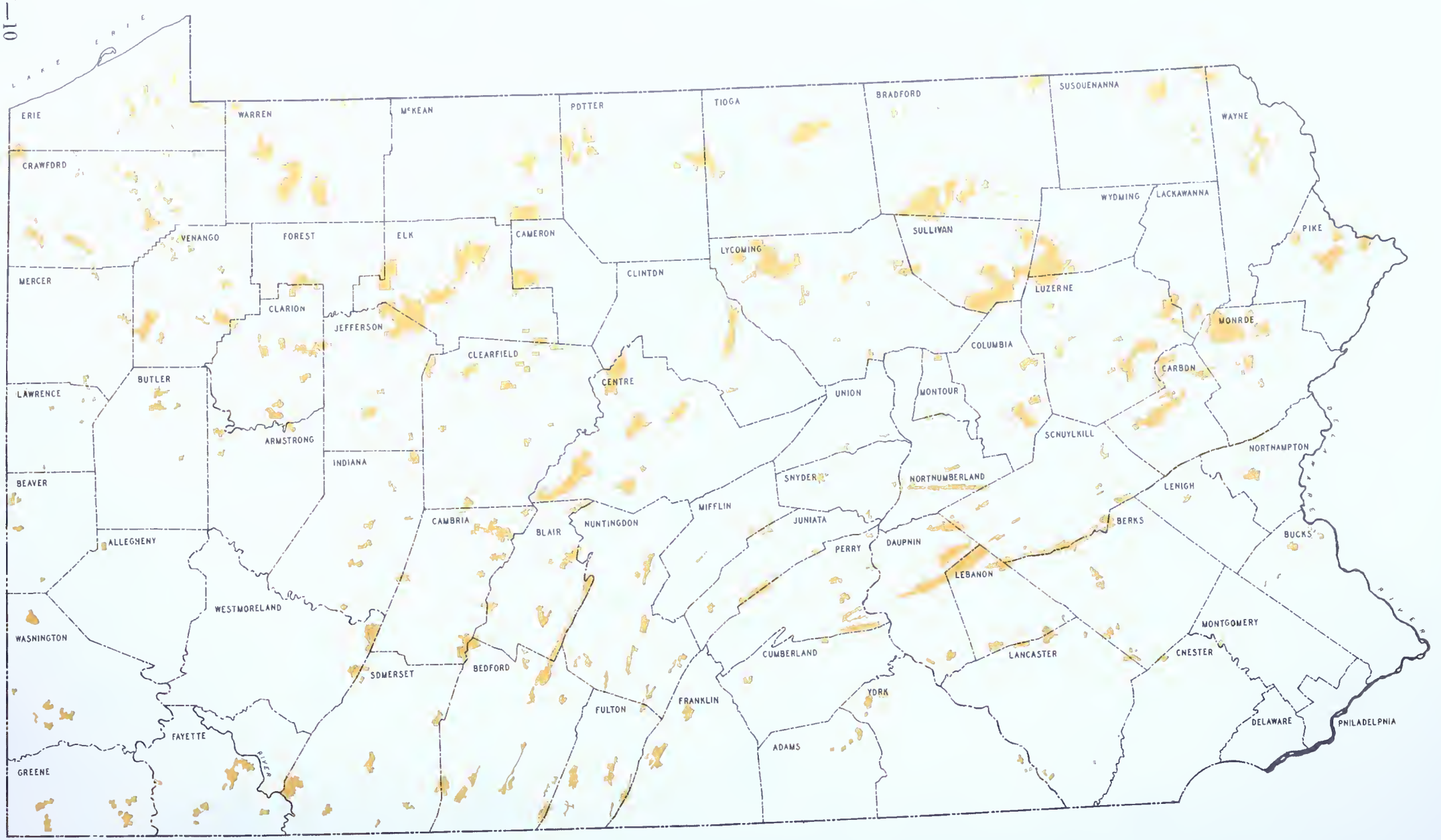
Active State Parks

Under Design or Acquisition

Potential State Parks

MAP 4

STATE GAME LANDS



MAP 5

TABLE 2

DISTRIBUTION OF STATE GAME AND PUBLIC ACCESS ACREAGE

Region	Game Lands	Farm-Game Co-op Program	Forest-Game Co-op Program	Safety Zone Program
1	5,732.4	40,857.0	.0	16,461.0
2	23,378.1	147,384.0	.0	21,530.0
3	159,051.6	99,213.0	.0	149,924.0
4	163,532.0	102,027.0	14,500.0	210,384.0
5	156,188.1	263,605.0	23,957.0	300,157.0
6	96,897.0	392,597.0	.0	345,122.0
7	173,585.3	297,816.0	.0	429,923.0
8	172,575.5	76,718.0	202,031.1	189,654.0
9	117,619.5	225,517.0	255,881.7	624,472.0
10	70,409.8	274,909.0	20,829.2	339,935.0
State Total	1,138,969.3	1,920,643.0	517,199.0	2,627,562.0

Source: Office of State Planning and Development Inventory

Pennsylvania Fish Commission

Through its responsibility for regulating fishing and boating, the Fish Commission manages, indirectly, approximately 185,000 acres of flat water area and 16,000 miles of streams which are suitable for recreational use. Of these totals, 4,177 miles of streams and 174,320 acres of ponds and lakes are suitable for boaring. The Commission provides over 155 access points and launching ramps at these waters. In addition, the Commission operates 14 fish hatcheries and in 1975 stocked over 1.65 million pounds of trout and salmon and 44 million warmwater fish.

The distribution of water areas suitable for fishing and boating is summarized by region in Tables 3 and 4 respectively.

Pennsylvania Department of Transportation

The Pennsylvania highway system currently consists of 114,144 miles of streets and highways.[1] Of this total mileage, 48,270 are under State control, 65,020 are under local control, and 854 miles are in Federal parks and forests. Also included in the total figure are 1,591 miles of Interstate Highway.

Along the Interstate and primary roads the Pennsylvania Department of Transportation provides 110 scenic rest areas and overlooks totalling approximately 897 acres of land. There are parking spaces for 4,780 cars and trucks and 1,194 picnic tables. Although Pennsylvania ranks eighth nationally in miles of highways, it ranks only twenty-sixth in number of scenic overlooks and rest areas. Map 6 shows the different types of areas and where they are located.

1. Federal Highway Administration, U.S. Department of Transportation, *Highway Statistics, 1972* (Washington, D.C. 1973) p. 168.

TABLE 3

WATER RESOURCES AVAILABLE FOR FISHING IN PENNSYLVANIA BY REGION

	Miles of Stream Water					Acres of Pond and Lake Water				
Region	Cold	Warm	Mixed	Total	Stocked	Cold	Warm	Mixed	Total	Stocked
1	173	461	317	951	342.0	0	5,887.0	843.0	6,730.0	3,379.0
2	337	110	192	639	421.0	50.0	1,691.5	219.0	1,960.5	456.0
3	1,074	113	455	1,642	829.9	1,008.0	22,343.4	13,046.8	36,398.2	12,932.0
4	753	253	147	1,153	685.7	317.0	4,587.2	1,591.0	6,495.2	2,295.0
5	1,397	414	362	2,173	1,215.3	213.0	2,705.5	726.0	3,644.5	2,974.5
6	712	934	117	1,763	723.0	138.0	2,749.0	2,249.8	5,136.8	2,973.8
7	939	259	316	1,514	794.9	224.3	13,594.0	4,789.7	18,608.0	15,141.8
8	1,744	172	388	2,304	1,031.6	278.7	1,221.0	2,204.5	3,704.2	2,266.6
9	1,571	274	370	2,215	1,154.4	129.0	27,637.0	64,884.4	92,650.4	88,944.9
10	617	858	241	1,716	752.4	351.0	8,832.0	770.0	9,960.0	6,244.0
Total	9,317	3,848	2,905	16,070	7,950.2	2,709.0	91,247.6	91,331.2	185,287.8	137,607.6

Source: Office of State Planning and Development Recreation Inventory and Department of Environmental Resources, Bureau of Resources Programing

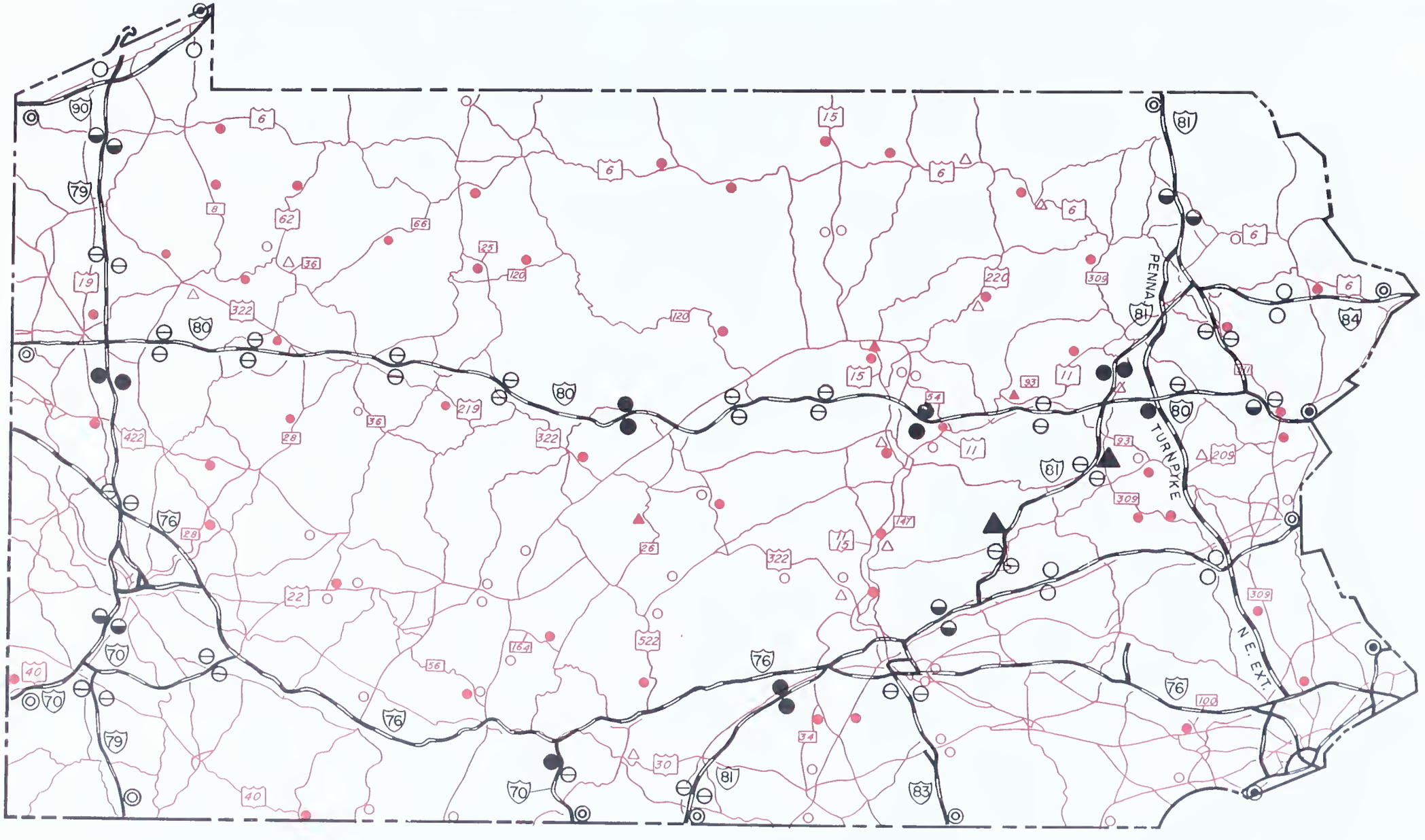
TABLE 4

WATER RESOURCES AVAILABLE FOR BOATING IN PENNSYLVANIA BY REGION

	Miles of Streams		Acres of Ponds and Lakes	
Region	Low Water	High Water	Low Water	High Water
1	243.1	366.9	6,185.6	6,185.6
2	106.4	161.2	1,727.7	1,837.7
3	187.3	291.0	28,007.8	30,116.2
4	191.6	277.1	6,309.3	6,354.7
5	375.3	546.8	2,180.1	2,986.1
6	462.1	671.1	4,146.3	4,156.8
7	189.8	389.4	17,421.5	17,989.6
8	297.8	488.3	3,660.2	3,668.7
9	275.5	441.7	90,976.1	92,093.4
10	432.2	543.9	8,740.7	8,931.2
Total	2,761.1	4,177.4	169,355.3	174,320.0

Source: Department of Environmental Resources, Bureau of Resources Programing

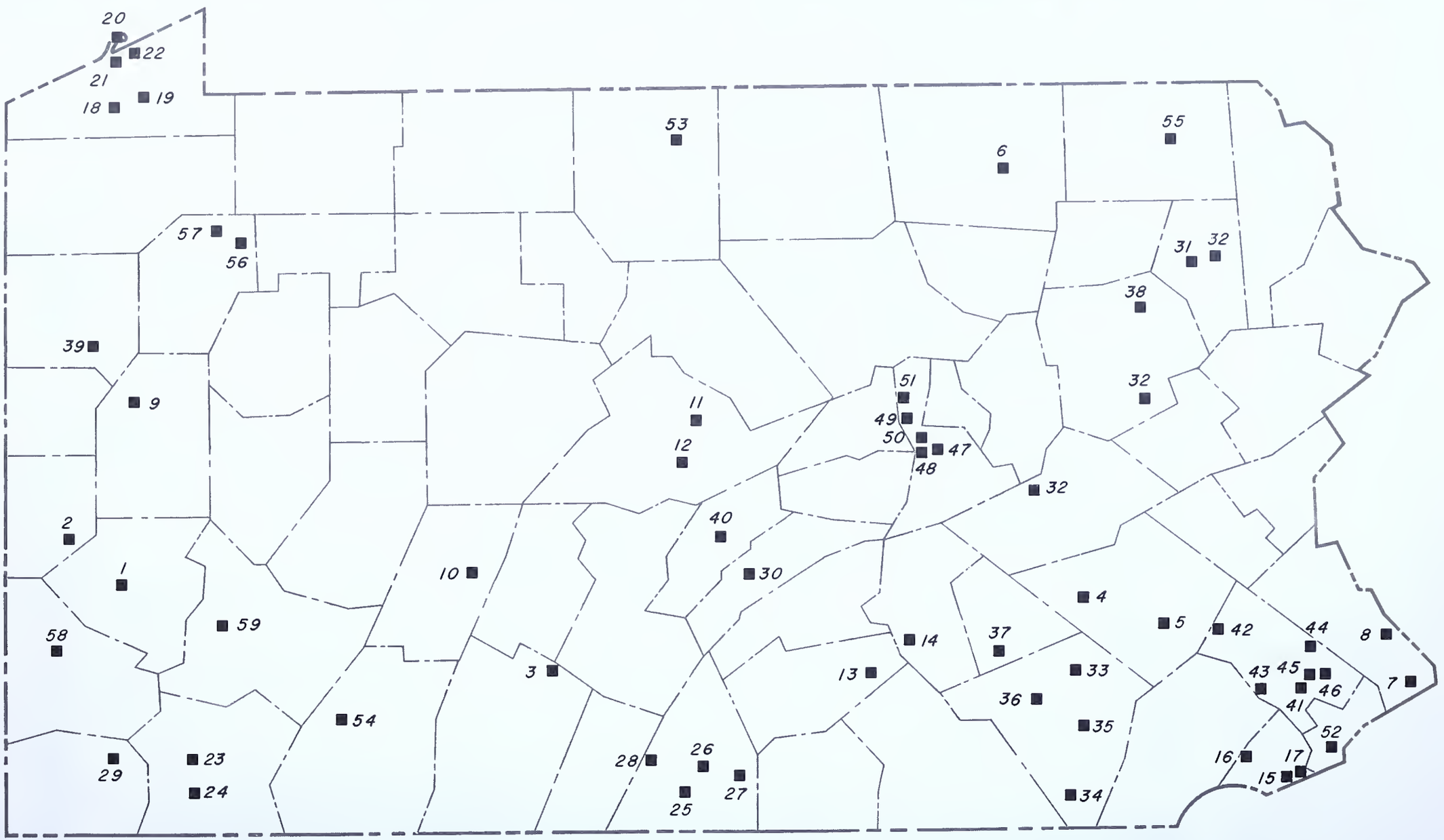
ROADSIDE RESTS AND SCENIC OVERLOOKS



INTERSTATE
PRIMARY
PROPOSED SITE
EXISTING SITE, WITH BUILDING
PROPOSED SCENIC OVERLOOK
EXISTING SCENIC OVERLOOK
TOURIST INFORMATION - PROPOSED
EXISTING SITE, BUILDING UNDER CONSTRUCTION
COMPLETED TOURIST INFORMATION
PARKING AREA

MAP 6

HISTORICAL AND MUSEUM COMMISSION PROPERTIES



MAP 7

Pennsylvania Historical and Museum Commission

The Historical and Museum Commission administers approximately 4,356 acres of historical recreation land in the Commonwealth. The State historical parks which the Commission operates account for the largest portion of this area. The Commission maintains fifty-nine museums and historical sites. Table 5 and Map 7 show the name and location of these properties.

Pennsylvania Department of Public Welfare

The Department of Public Welfare provides approximately 20,697 acres of land for recreational use at its institutions for the mentally ill and retarded. Although this area is available to a small segment of the population only, diverse activities such as picnicking, swimming, hiking, camping, fishing, and general outdoor games are accommodated.

TABLE 5

HISTORICAL SITES AND PROPERTIES ADMINISTERED BY THE PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

Allegheny County

1. FORT PITT MUSEUM, Point Park, Pittsburgh

Beaver County

2. OLD ECONOMY VILLAGE, northwest of Pittsburgh on Pennsylvania 65, Ambridge

Bedford County

3. CAPTAIN PHILLIPS' RANGERS MEMORIAL, northeast of Bedford, off Pennsylvania 26 near Saxton

Berks County

4. CONRAD WEISER PARK, 2 miles east of Womelsdorf, U. S. 422
5. DANIEL BOONE HOMESTEAD, approximately 2 miles north of Birdsboro

Bradford County

6. FRENCH AZILUM, south shore of Susquehanna River at Rummerfield

Bucks County

7. PENNSBURY MANOR, on Delaware River south of Bordentown Road
8. WASHINGTON CROSSING STATE PARK, between Yardley and New Hope, on Delaware River

Butler County

9. OLD STONE HOUSE, 12 miles north of Butler on Pennsylvania 8

Cambria County

10. ADMIRAL PEARY PARK, on U. S. 22 at Cresson

Centre County

11. CURTIN VILLAGE, north of Bellefonte on U. S. 220 at Curtin
12. PENNSYLVANIA MILITARY MUSEUM, 28th Division Shrine, Boalsburg on U. S. 322

Cumberland County

13. PEACE CHURCH, northwest corner of the intersection of State Route 641 and St. John's Road

Dauphin County

14. WILLIAM PENN MUSEUM, corner of Third and North Streets, Capitol Complex, Harrisburg

Delaware County

15. GOVERNOR PRINTZ PARK, near junction of Pennsylvania 291 and 420 at Essington
16. BRANDYWINE BATTLEFIELD PARK, near junction of U. S. 1 and U. S. 202
17. MORTON HOMESTEAD, 100 Lincoln Avenue, Prospect Park

Erie County

18. FORT LE BOEUF, on U. S. 19 at Waterford
19. JUDSON HOUSE, 31 High Street, Waterford
20. FLAGSHIP NIAGARA, State Street at Lake Erie, Erie
21. OLD CUSTOM HOUSE, 409 State Street, Erie
22. CASHIER'S HOUSE, 413 State Street, Erie

Fayette County

23. SEARIGHTS TOLL HOUSE, west of Uniontown, near U. S. 40
24. GREAT MEADOWS AMPHITHEATER, 1½ miles west of U. S. 40 in Wharton Township

Franklin County

25. BROWN'S MILL SCHOOL, east of U. S. 11 near Marion
26. JOHN BROWN HOUSE, 225 East King Street, Chambersburg
27. THADDEUS STEVENS' BLACKSMITH SHOP, Caledonia State Park, junction of Pennsylvania 233 and U. S. 30

TABLE 5 (continued)

28. FORT LOUDON, ½ mile south of Route 30 and 1 mile southeast of Village of Fort Loudon in Peters Township

Greene County

29. HUGHES HOUSE, Hatfield Street, Jefferson

Juniata County

30. TUSCARORA ACADEMY, 8 miles south of Mifflintown at the intersection of Routes 34005 and 34028

Lackawanna County

31. SCRANTON'S IRON FURNACES, Adams Avenue by Moosic River, Scranton
32. ANTHRACITE MUSEUM COMPLEX, Lackawanna Unit—Keyser Valley Park, Scranton, Luzerne Unit—Miners Village, Eckley, Schuylkill Unit—Pioneer Tunnel, Ashland

Lebanon County

37. CORNWALL IRON FURNACE, 5 miles south of Lebanon on U. S. 322

Lancaster County

33. EPHRATA CLOISTER, east of junction of U. S. 322 and Pennsylvania 272, near Ephrata
34. ROBERT FULTON BIRTHPLACE, 8 miles south of Quarryville on U. S. 22
35. RAILROAD MUSEUM OF PENNSYLVANIA, 3 miles east of Strasburg on Pennsylvania 741
36. PENNSYLVANIA FARM MUSEUM, 5 miles north of Lancaster on Pennsylvania 272

Luzerne County

38. DENISON HOUSE, 35 Denison Street, Forty-Fort

Mercer County

39. JOHNSTON'S TAVERN, 6 miles south of Mercer on U. S. 19

Mifflin County

40. McCOY HOUSE, 17 North Main Street, Lewistown

Montgomery County

41. THE HIGHLANDS, Sheaff Road in Fort Washington
42. POTTSGROVE MANSION, west of Pottstown on Benjamin Franklin Highway (High Street)
43. VALLEY FORGE STATE PARK, Norristown vicinity
44. GRAEME PARK, Keith Valley Road, Horsham vicinity
45. MATHER HILL, on U. S. 309 near Fort Washington
46. HOPE LODGE, 553 Bethlehem Pike, Fort Washington

Northumberland County

47. FORT AUGUSTA, on Pennsylvania 147 at Sunbury
48. BLOODY SPRING, North 7th Street Extension near Memorial Park, Sunbury
49. SODOM SCHOOLHOUSE, east of Montandon on Pennsylvania 45
50. JOSEPH PRIESTLEY HOUSE, Priestley Avenue, Northumberland
51. WARRIOR RUN PRESBYTERIAN CHURCH, on Pennsylvania 147 north of McEwensville

Philadelphia County

52. PORT OF HISTORY, along the Delaware River, Philadelphia

Potter County

53. PENNSYLVANIA LUMBER MUSEUM, on U. S. 6 between Coudersport and Galeton

Somerset County

54. SOMERSET HISTORICAL CENTER, on U. S. 219 north of Somerset

Susquehanna County

55. OLD MILL VILLAGE, 1 mile south of New Milford on U. S. 11

Venango County

56. PITHOLE CITY, off Pennsylvania 227 north of Plumer
57. DRAKE OIL WELL, 3 miles southeast of Titusville on Pennsylvania 36, Drake Well Memorial Park

Washington County

58. DANIEL BRADFORD HOUSE, 175 South Main Street, Washington

Westmoreland County

59. BUSHY RUN BATTLEFIELD, 2 miles east of Harrison City on Pennsylvania 993

LOCAL RESOURCES

Government responsibility for meeting the daily recreation needs of local residents is delegated to the approximately 2,600 municipal governments of the Commonwealth. The demand placed on municipal recreation facilities is great. The report on *Urban Recreation* prepared for the Nationwide Outdoor Recreation Plan reported that the overwhelming majority of recreation activity is sought locally, after work, after school hours, or in short one-day outings. Moreover, the *Recreation Imperative* stated that, in 1965, sixty-five percent of the nation's visitor load at public areas fell on municipally-administered areas. Of all areas, the use of municipal recreation facilities was exceeded only by the use of privately-owned lands.

Approximately one-half of the 2,633 local governments in Pennsylvania provide one or more recreation areas. Full-time recreation and park agencies provide services and facilities year-round in approximately 120 municipalities (including 21 counties). Recreation services and facilities are provided by other municipalities under the administration of recreation and park boards, school authorities, or other local government agencies. Municipal government agencies are aided in varying degrees in providing local recreation services and facilities by private enterprise, nonprofit groups, and State and Federal agencies. The supply of local recreation resources may be vastly expanded in those communities where school recreation facilities are available for use by the general public.

During the last ten years under the Federal Land and Water Conservation Fund and the Pennsylvania PROJECT 70 and PROJECT 500 programs, the supply of local public recreation has increased substantially. These programs made funds available for the planning, acquisition, and development of park and recreation areas. Table 6 shows how much land has been purchased for recreation in each region through these programs and what type of development has taken place. Regions 1 and 10, which contain approximately fifty-seven percent of the population of the State, acquired approximately fifty percent of all land and facilities developed for recreation. The rest is fairly evenly distributed throughout the other eight regions.

Although local recreation programs and facilities must reflect the special needs of each community, it is worthwhile to look at the collective supply of municipal recreation facilities at the state and regional levels. Such an assessment will indicate the relative status of municipal recreation supply as a component of the total State supply and assist the Commonwealth and the municipalities in determining recreation priorities. It is essential to bear in mind, however, that the 2,633 local governments in Pennsylvania vary greatly in the provision of recreation facilities, with some providing excellent services and many others providing none.

Local governments own 127,000 acres of recreation space. These areas include totlots, neighborhood, community and county parks, playfields, golf courses, and campgrounds. They provide such diverse facilities as picnic tables, swimming pools, beach areas, campsites, cabins, hiking and biking trails, ski slopes, tennis courts and outdoor game areas. Table 1 shows the regional distribution of local recreational acreage and Table 7 shows the quantity of local government-owned recreation facilities along with the Federal and State Governments and private profit and non-profit segments of the economy.

TABLE 6

REGIONAL SUMMARY OF LOCAL RECREATIONAL ACQUISITIONS THROUGH STATE AND FEDERAL AND FUNDING PROGRAMS FROM 1963 to 1973

Region	Site Acres	Water Acres	Stream Miles	No. of Picnic Tables	Sq. Ft. of Swim Pool	Usable Beach Footage	No. of Campsites
1	9,782.9	547.0		459	314,000		
2	3,544.4	34.3	9	310	145,000		20
3	12,573.3	55.5		599	84,000	900	109
4	1,508.6	10.0		50	11,000	4,200	30
5	3,032.7	51.0		310	124,000		
6	4,803.4	37.0	1	426	71,000		
7	1,855.0			22	14,000		
8	2,044.6	1.2	1	125	11,000	300	
9	8,350.5	140.0		213	44,000	1,200	
10	36,345.7	191.7	1	4,620	63,000		4
Total	83,841.1	1,067.7	12	7,134	881,000	6,600	163

Region	No. of Cabins	No. of Ski Slopes	No. of Ski Lifts	Miles of Hiking Trails	Miles of Biking Trails	No. of Launch Ramps	No. of Parking Spaces	Motor Vehicle Trails	No. of Shelters
1	22	1		3	4	1	3,574		44
2				9	9	12	2,929	1	28
3				2		2	1,844		26
4				3			125	1	2
5		1	1	2			1,866	3	25
6							3,071		39
7							384		7
8							832		6
9							2,070		31
10		4	3	28	2	8	7,431	6	96
Total	22	6	4	47	15	23	24,126	11	304

Region	No. of Tennis Courts	No. of Basket-ball Courts	No. of Multi-purpose Courts	No. of General Purpose Fields	No. of Football-Soccer Fields	No. of Baseball Fields
1	104	93	32	13	11	67
2	27	16	32	3	1	26
3	45	15	41	4	2	40
4	2	2				1
5	41	6	18	3	1	17
6	55	35	34	4	4	40
7	21	4	6	1		8
8	19	12	8	1		10
9	37	21	28	4		8
10	90	33	102	11	3	64
Total	441	237	301	44	22	281

TABLE 6 (continued)

Region	No. of Play-grounds	No. of Wading Pools	No. of Sled-Toboggan Areas	No. of Ice Rinks	No. of Bath Houses
1	70	32	3	4	29
2	36	16	3	12	8
3	39	16		10	9
4	1	1			2
5	24	7	2	3	13
6	59	15	2	4	8
7	32	3		2	4
8	8	3		5	3
9	19	5	1	5	5
10	111	15	2	14	10
Total	399	113	13	59	91

Source: Department of Community Affairs Study.

TABLE 7

SUMMARY OF RECREATION FACILITIES BY TYPE OF OWNERSHIP

	FEDERAL	STATE	LOCAL	PRIVATE PROFIT	PRIVATE NONPROFIT
Water Acres	86,341.4	42,448.6	4,157.7	28,373.2	24,755.1
Stream Miles	1,330	2,351	267	436	11,793
Picnic Tables	6,513	31,876	30,117	37,157	13,548
Square Feet of Swimming Pools	0	217,000	3,853,000	3,751,000	2,115,000
Linear Feet Of Beach	400	53,200	43,700	99,700	43,500
Campsites	1,368	7,047	371	37,739	7,259
Cabins	0	4,337	67	3,523	2,436
Ski Slopes	0	32	6	224	24
Ski Lifts	0	15	4	127	7
Hiking Trails	133	4,338	451	2,323	1,119
Bicycle Trails	0	42	73	555	185
Boat Ramps	155	534	65	383	316

PRIVATE RESOURCES

As an ownership category, private profit and non-profit establishments offer the largest supply of most types of recreation facilities. Using just those areas which are included in the Pennsylvania inventory of recreation areas and facilities, private facilities total more than 5.6 million acres of land for recreation purposes.

From the Pennsylvania inventory:

42% of all inventoried picnic facilities are in private ownership.

59% of the swimming pool capacity is in private ownership.

59% of swimming beach is in private ownership.

83% of all campsites are in private ownership.

80% of all ski slopes are in private ownership.

48% of all boat launching ramps are in private ownership.

Table 7 summarizes a number of different kinds of recreation facilities by ownership.

Table 8 gives the total facilities supply by region.

Table 9 gives the percentage distribution of the total private supply in each region.

Table 10 gives the percentage distribution of the total state supply in each region.

A complete description of the location, diversity, and appropriate measures of the enormity of recreation opportunities available from the private sector is an undertaking far in excess of the scope of this chapter. Suffice it to say that the private sector in Pennsylvania runs the gamut from major amusement parks, educational facilities, campgrounds, dude ranches, white water rafting and snow skiing lodges to virtually all manner and type of recreation experiences conceivable.

These private facilities exist throughout the Commonwealth. Major concentrations are found in the "tourist areas" such as the Pocono's and Pennsylvania Dutch Country, although every county had some kind of identifiable private recreation area or facility when inventoried in 1974. This plan estimates that there were more than 5,000 private profit and non-profit establishments when the survey was conducted in 1974.

TABLE 8

PENNSYLVANIA SUPPLY OF OUTDOOR RECREATION FACILITIES BY REGION

Region	No. Picnic Tables	Square Feet of Swimming Pools	Linear Feet of Beach	No. of Campsites	No. of Cabins
1	10,440	2,528,000	26,400	2,435	622
2	9,413	978,000	2,600	2,818	157
3	12,265	866,000	40,700	4,846	2,958
4	6,138	145,000	59,600	4,777	398
5	9,641	563,000	15,300	6,649	1,812
6	18,379	1,356,000	15,100	11,245	1,100
7	10,782	386,000	13,000	3,431	731
8	4,726	128,000	6,700	3,644	1,226
9	10,677	830,000	42,300	8,859	729
10	26,744	2,156,000	18,800	5,080	630
Total	119,211	9,936,000	240,500	53,784	10,363

TABLE 8 (continued)

Region	No. of Ski Slopes	No. of Ski Lifts	Miles of Hiking Trails	Miles of Bicycle Trails	No. of Boat Launching Ramps	No. of Parking Spaces
1	13	11	464	71	111	116,018
2	9	5	166	14	83	68,220
3	76	40	1,016	288	239	110,530
4	23	7	1,264	89	107	30,717
5	27	12	1,430	80	183	77,147
6	17	12	852	81	172	181,567
7	48	32	834	74	84	71,326
8	27	7	1,200	19	40	45,751
9	3	4	449	39	258	100,349
10	43	23	689	100	176	206,814
Total	286	153	8,364	855	1,453	1,008,439

TABLE 9

PERCENTAGE OF PRIVATE FACILITIES WITHIN EACH REGION

REGION	1	2	3	4	5	6	7	8	9	10
% Picnic Tables	7.1	12.7	12.0	7.0	8.2	19.6	4.6	4.4	10.0	14.4
% Square Feet Of Swimming Pools	29.5	5.8	6.2	1.6	4.1	15.0	3.6	1.0	11.2	22.0
% Linear Feet Of Beach	7.2	.7	23.0	32.0	8.4	8.4	4.5	2.9	3.6	9.3
% Campsites	5.4	5.9	7.4	10.2	13.8	23.1	2.4	6.1	16.3	9.4
% Cabins	9.2	2.6	36.8	3.5	7.0	8.9	6.9	3.2	11.7	10.2
% Ski Slopes	4.0	3.6	30.6	9.3	9.7	6.9	18.5	6.9	1.2	9.3
% Hiking Trails	4.7	1.8	21.4	24.2	5.6	11.6	11.4	4.9	4.4	10.1
% Bicycle Trails	1.4	.7	38.6	12.0	9.4	10.3	7.8	2.6	5.3	11.9
% Boat Ramps	10.3	6.3	21.7	9.9	8.9	16.2	2.3	1.0	12.0	11.4

TABLE 10

PERCENTAGE OF STATE FACILITIES WITHIN EACH REGION

REGION	1	2	3	4	5	6	7	8	9	10
% Picnic Tables	9.3	4.1	12.8	2.5	10.4	16.9	17.0	5.6	9.2	12.2
% Square Feet Of Swimming Pools	22.1	3.2	10.6	0.0	4.6	30.9	8.3	4.2	1.8	14.3
% Linear Feet Of Beach	0.4	2.3	12.8	6.4	4.3	5.8	11.3	4.1	42.3	10.3
% Campsites	0.0	2.6	20.9	3.1	7.9	12.8	22.4	6.9	13.8	9.6
% Cabins	0.1	0.1	17.6	4.4	32.2	13.2	7.4	23.9	0.7	0.4
% Ski Slopes	6.2	0.0	0.0	0.0	6.2	0.0	6.2	31.4	0.0	50.0
% Hiking Trails	3.0	2.0	6.4	9.8	28.4	9.7	9.0	22.5	5.0	4.2
% Bicycle Trails	42.9	0.0	0.0	0.0	19.0	0.0	38.1	0.0	0.0	0.0
% Boat Ramps	4.3	3.2	14.2	6.8	17.8	9.9	9.0	3.4	20.0	11.4

SUPPLY OF SPECIALIZED RECREATIONAL FACILITIES

Through several special programs, natural resources of exceptional scenic value and sites of enduring cultural or historical interest are being developed or preserved. Specifically, these programs are being directed toward preserving landmarks and undisturbed river sections and developing hiking trails.

National Register of Historic Places and National Historic Landmarks

Because of the important part that Pennsylvania played in the founding of the Nation and has played in its development, there are a great number of historical places and landmarks in the Commonwealth that are nationally significant. By March 1975, there were 402 sites listed on the National Register, of which 226, somewhat more than one-half, are located in Planning Region 1 (Philadelphia, Delaware, Bucks, Montgomery, and Chester Counties).

Inclusion in this register follows designation by the Secretary of the Interior. Under the National Register Programs, a State Liaison Officer, appointed by the Governor, is responsible for recommendations from the State. The criteria for inclusion into these programs are presented in the beginning of Appendix 1.

Of the 402 National Register sites, (See Appendix 1), sixty-three are National Historic Landmarks (See Map 1 and Table 2 in Appendix 1) and seven are National Historical Parks (See National Park Service, page IV-4; and Map 1).

National Registry of Natural Landmarks

In accordance with the Historic Sites Act of 1935, the Registry of Natural Landmarks consists of areas which are being preserved because they are paradigmatic of the Nation's natural heritage. In Pennsylvania, there are eighteen of these areas and two other areas in the Allegheny National Forest which are eligible for inclusion in the Registry. These twenty areas are listed in Table 3 and depicted on Map 2 in Appendix 1.

Generally, the National Natural Landmark system is composed of areas which are demonstrative of Landforms of the Present, the Geological History of the Earth, Land Ecosystems, and Aquatic-Ecosystems. These categories were developed by the National Park Service to qualify selections. The more specific criteria are presented in Appendix 1.

Wild and Scenic Rivers

Both the Federal Congress (in 1968) and the Pennsylvania Legislature (in 1975) have enacted legislation establishing the framework through which wild, scenic, or recreationally-beneficial rivers or sections of them are preserved. More specifically, the kinds of rivers provided for in these laws are:

1. Wild River Area—Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watershed or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
2. Scenic River Areas—Those rivers or sections of rivers that are free of impoundments, with shorelines or watershed still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
3. Recreational River Areas—Those rivers or sections of rivers that are readily accessible by road or railroad, that may have undergone some impoundment or diversion in the past.

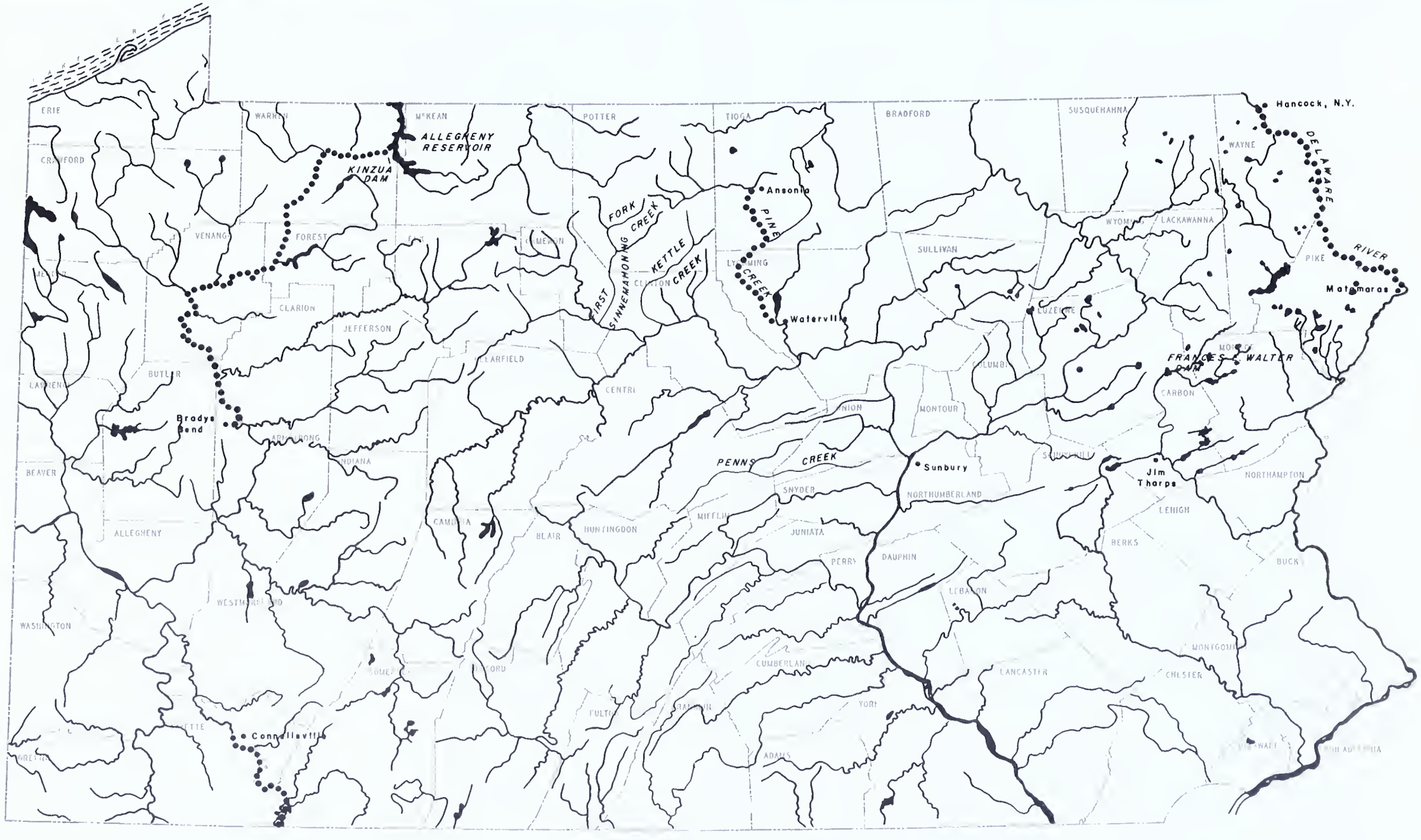
In addition to these kinds of areas the "Pennsylvania Scenic Rivers Act" (Act 283), specified a fourth category:

4. Modified Recreational Rivers—Those rivers or sections of rivers in which the flow may be regulated by control devices located upstream. Low dams are permitted within the reaches so long as they do not increase the river beyond bank-full width. These reaches are used for human activities which do not substantially interfere with public use of the streams or the enjoyment of their surroundings.

At present, Pennsylvania does not have any rivers or streams in the national system. However, there are three segments of rivers which are being considered for inclusion:

1. Pine Creek—The segment from Ansonia to Waterville.
2. The Youghiogheny River—The segment from the Maryland line to the Youghiogheny Reservoir, from the Youghiogheny Dam down stream to the town of Connellsville, Pennsylvania.
3. The Delaware River —The segment from Hancock, New York to Matamoras, Pennsylvania (Map 8).

PROPOSED WILD AND SCENIC RIVERS



•••••••••••• Under Study For National System

MAP 8

In response to the State act, a State Scenic Rivers Task Force has been created to identify, study, and recommend to the Department of Environmental Resources those streams or sections of streams which merit detailed study for possible inclusion in the Pennsylvania Scenic River System.

The first phase of screening work completed by that task force was part of the work undertaken to update this plan. Task force findings are presented in Appendix 2.

National Scenic and Recreation Trails

The National Trails System Act (Public Law 90-543) was passed in 1968 and provides the administrative machinery whose objective is a national system of trails. Basically, the act stipulates four types of trails which qualify for inclusion in this system: National Scenic Trails, National Recreation Trails, Connecting or Side Trails, and State and Metropolitan Area Trails.

The first type of trail is represented in Pennsylvania by the Appalachian Trail which follows the Blue Ridge for 228.8 miles from Pen Mar in Franklin County to the Delaware Water Gap in Monroe County (See Map 1). There are also two proposed scenic trails which currently are being studied. The North Country Trail enters Pennsylvania just west of Darlington in Beaver County and extends northeast through the Allegheny Forest. The other is the Potomac Heritage Trail. It enters Pennsylvania just east of the Youghiogheny River and continues northwest to its junction with the Laurel Highlands Trail. (See Map 9).

A fourth trail, the Kittanning Path, was under study by the Bureau of Outdoor Recreation for possible inclusion in the National Scenic Trails System. Although the results of that study indicated that the Bureau did not determine that the Kittanning Path was of national significance, it did acknowledge that the trail merited State, regional, and local recognition. To this end, the Bureau recommended that the five counties through which the trail passes should jointly develop sections of the trail and encourage development of private recreation facilities adjacent to the trail.

In addition to these trails, the Fairmount Park Bikeway in Philadelphia (a foot and bicycle trail 8.5 miles long) was designated as a National Recreation Trail in June 1971. It is located in one of the oldest and largest urban parks in the Nation, Fairmount Park. The trail follows the banks of the Schuylkill River and is interlaced by five and one-half miles of connecting trails throughout the park.

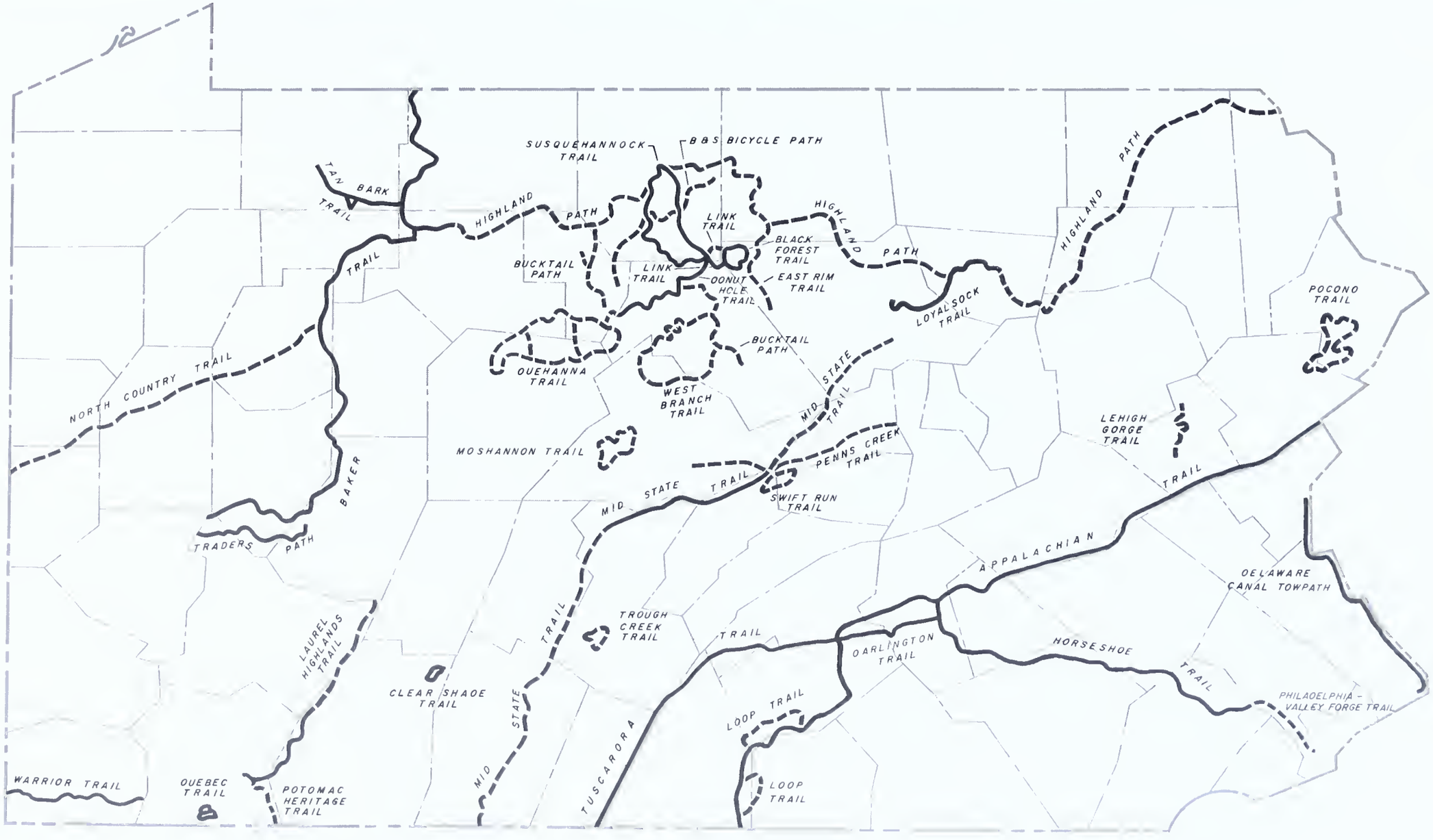
In order to further the objectives and purposes of the National Trails System a bill has been introduced in the Pennsylvania General Assembly to establish a Pennsylvania Trails System. The classification of trails will remain the same as those established by Congress.

In the development of new trails in Pennsylvania the concept of loop trails is receiving increasing emphasis in order to accommodate different types of outdoor experiences. The long-loop trails are designed to provide a four to eight hour hike to a two or three day hike enabling the hiker to return to his original point of departure without backtracking. The short-loop trails or specialty trails are designed to provide a short hiking experience of one to four hours. Map 9 shows one system of trails that is being developed in the Commonwealth.

Recreation Resources in the Uniform Planning Regions of the State

As seen in the data presented in the preceding tables and maps, Pennsylvania has a host of public and private recreation areas. However, each uniform planning region (Map 10) has its own unique recreational areas and facilities, historical sites and natural areas. For easy reference, Maps 11 through 22 show the location of Federal and State recreational points of interest in each region.

TRAILS OF PENNSYLVANIA

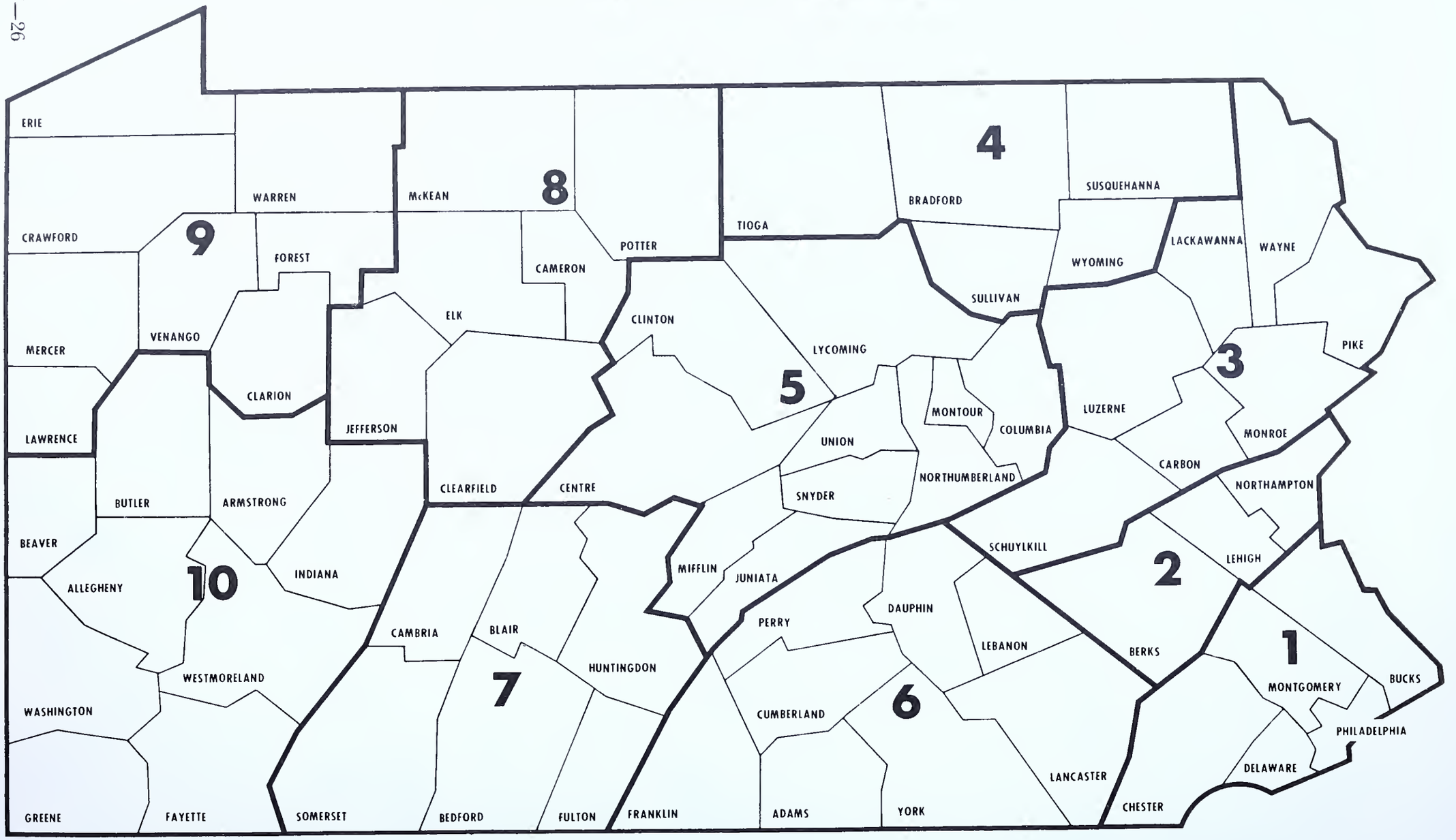


Existing Trails

Proposed Trails

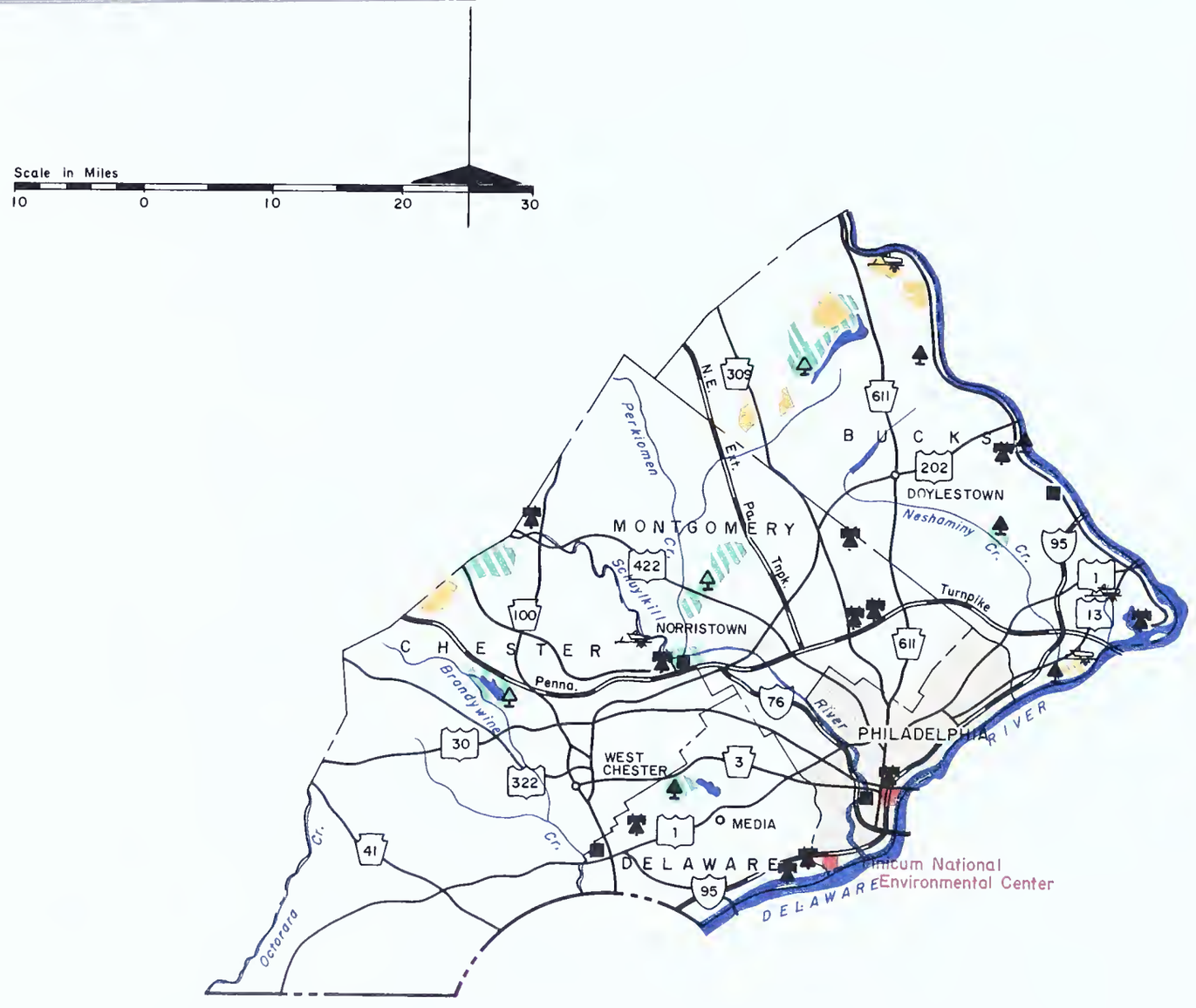
MAP 9

UNIFORM REGIONS



MAP 10

REGION 1



L E G E N D

- STATE FOREST LANDS
- STATE GAME LANDS
- Penn Lake — U.S. CORP OF ENGINEERS PROJECT
- NATIONAL PARK PROPERTIES
- STATE PARK – EXISTING
- STATE PARK – UNDER DEVELOPMENT
- STATE PARK – PROPOSED
- STATE NATURAL AREA
- STATE HISTORICAL PARK
- STATE MUSEUM PROPERTIES
- TRAIL – EXISTING
- TRAIL – PROPOSED
- STATE FISH COMMISSION ACCESS AREA
- STATE FISH HATCHERY

MAP II

REGION 2

Scale In Miles
10 0 10 20 30

L E G E N D

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- STATE GAME LANDS
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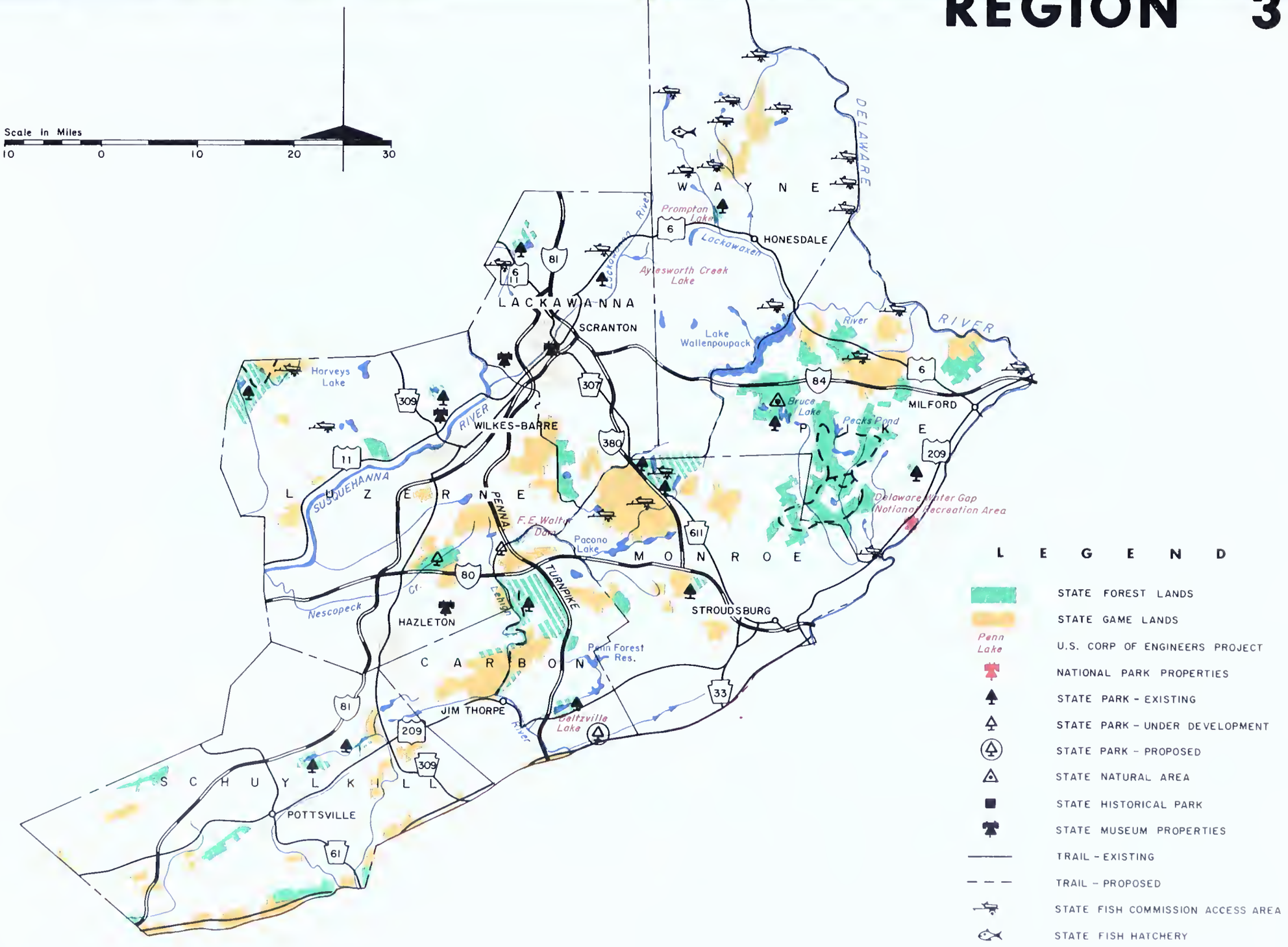
- NATIONAL PARK PROPERTIES
- STATE PARK - EXISTING
- STATE PARK - UNDER DEVELOPMENT
- STATE PARK - PROPOSED
- STATE NATURAL AREA
- STATE HISTORICAL PARK
- STATE MUSEUM PROPERTIES
- TRAIL - EXISTING
- TRAIL - PROPOSED
- STATE FISH COMMISSION ACCESS AREA
- STATE FISH HATCHERY

MAP 12

REGION 3



LEGEND

- STATE FOREST LANDS
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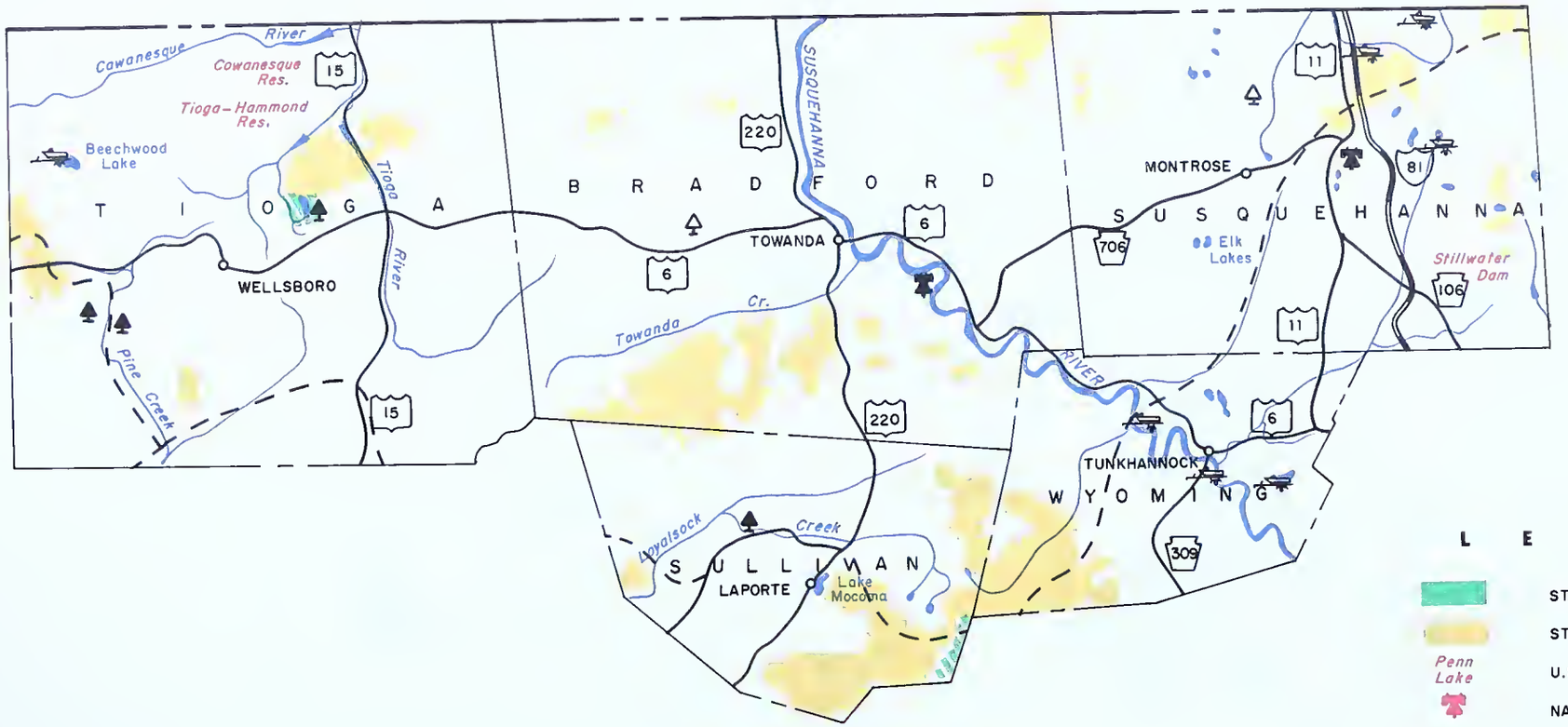
- STATE HISTORICAL PARK
- STATE MUSEUM PROPERTIES
- TRAIL - EXISTING
- TRAIL - PROPOSED
- STATE FISH COMMISSION ACCESS AREA
- STATE FISH HATCHERY

MAP 13

REGION 4



LEGEND

- STATE FOREST LANDS
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- TRAIL - EXISTING
- TRAIL - PROPOSED
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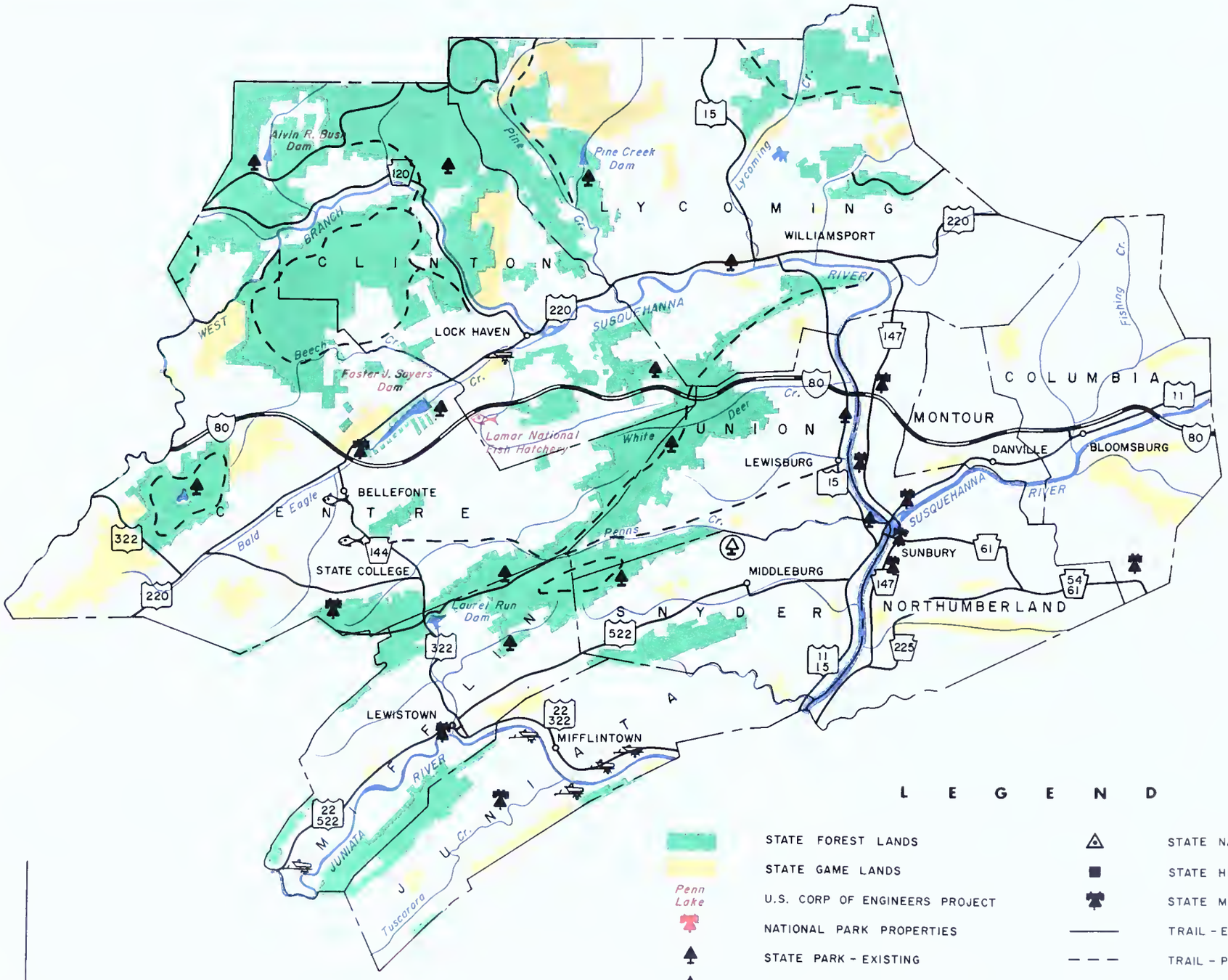
- STATE FISH HATCHERY

Scale in Miles

10 0 10 20 30

MAP 14

REGION 5



LEGEND

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- STATE GAME LANDS
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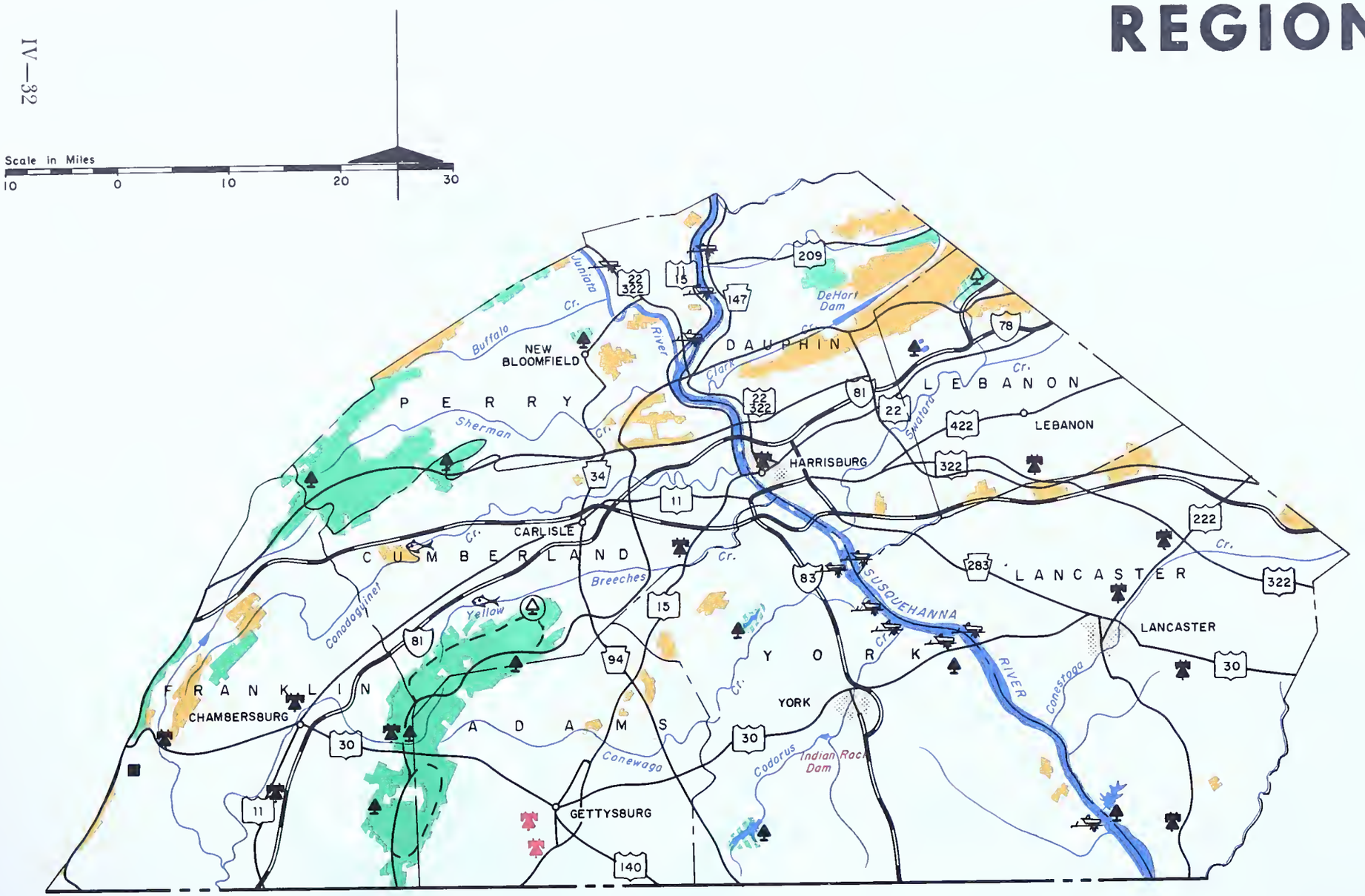
- STATE HISTORICAL PARK
- STATE MUSEUM PROPERTIES
- TRAIL - EXISTING
- TRAIL - PROPOSED
- STATE FISH COMMISSION ACCESS AREA
- STATE FISH HATCHERY

MAP 15

REGION 6



LEGEND

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- STATE MUSEUM PROPERTIES
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- TRAIL – PROPOSED
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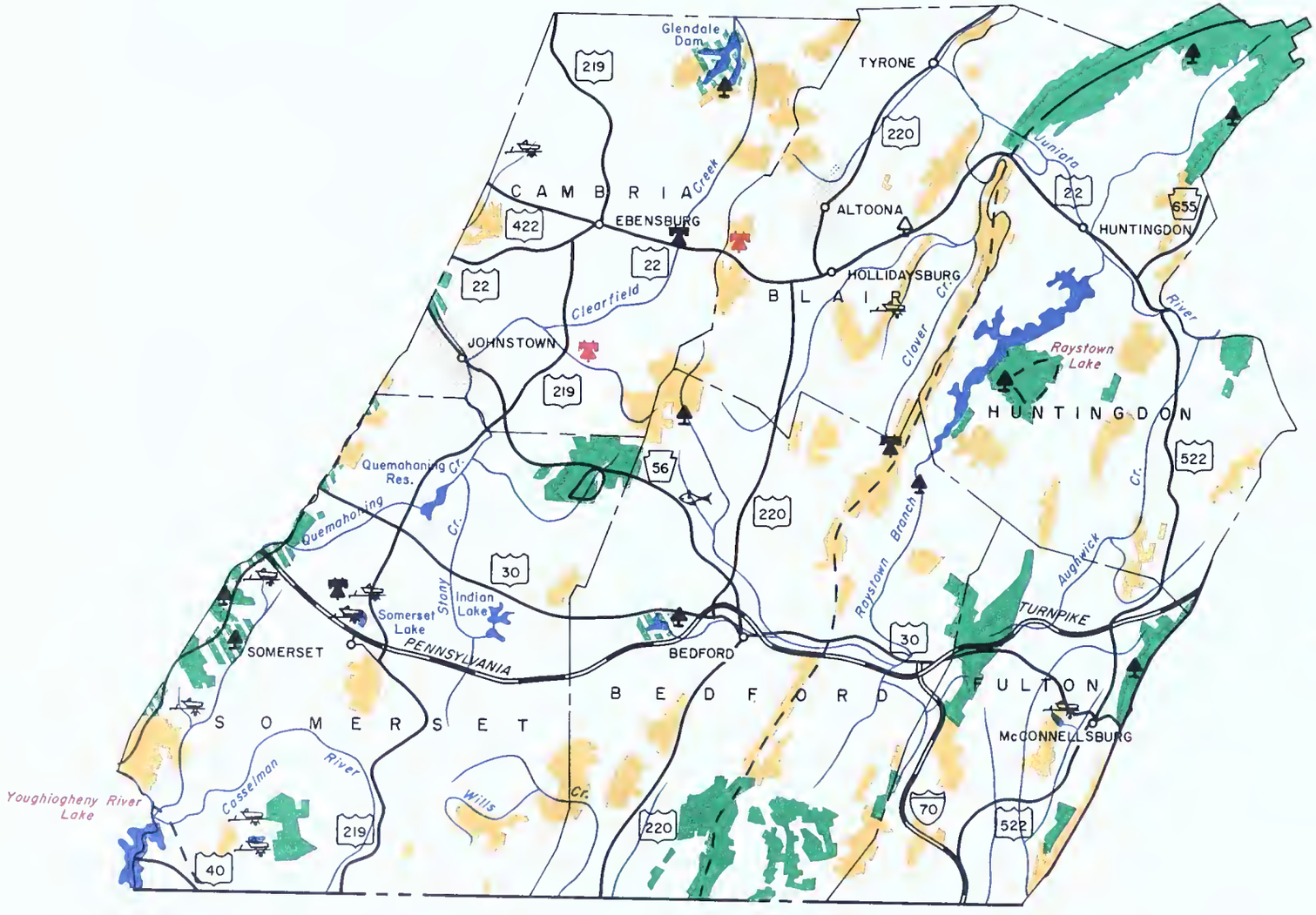
- STATE FISH HATCHERY

MAP 16

REGION 7



Scale In Miles

10 0 10 20 30

L E G E N D

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- TRAIL – PROPOSED
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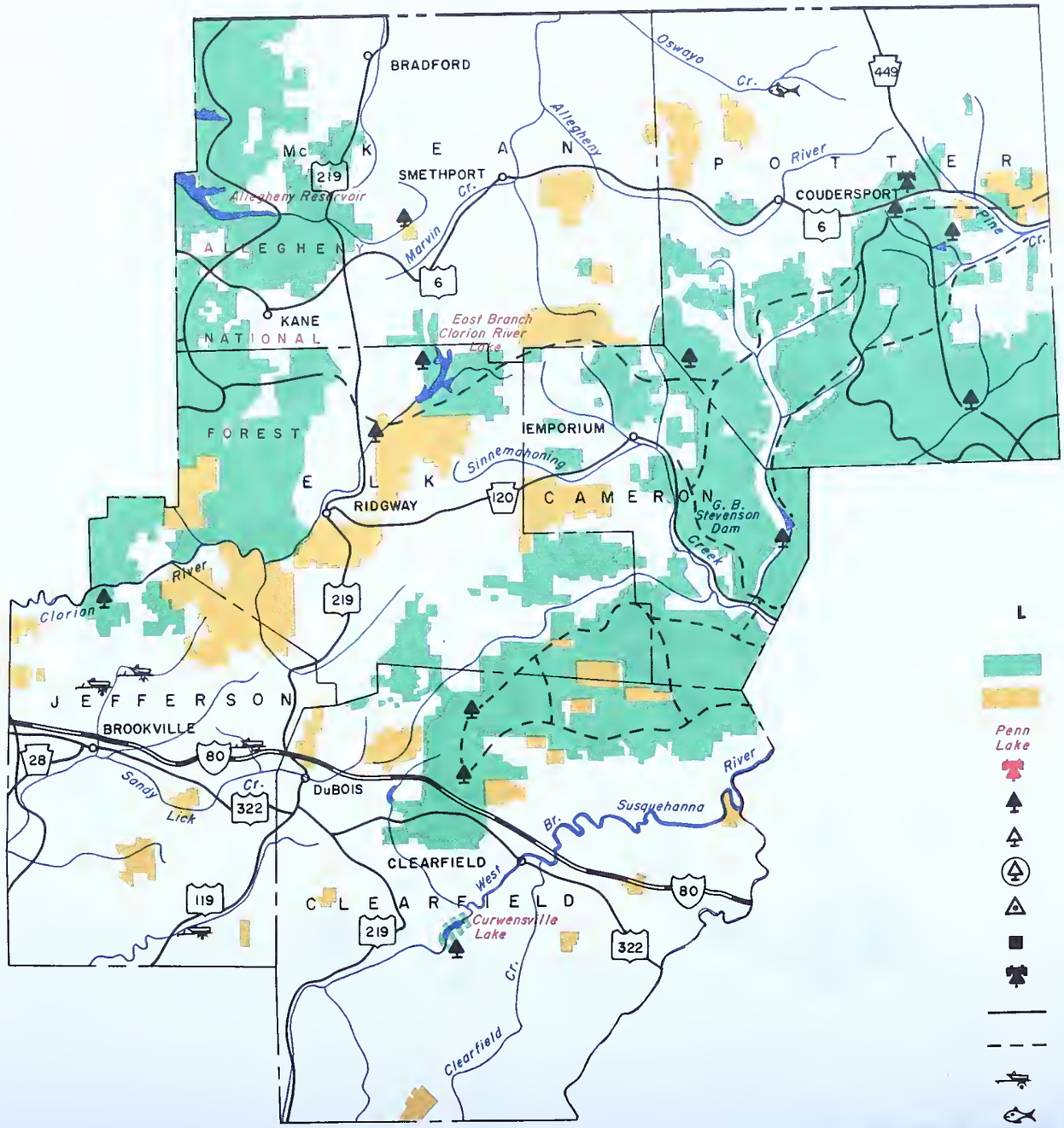
- STATE FISH HATCHERY

MAP 17

REGION 8



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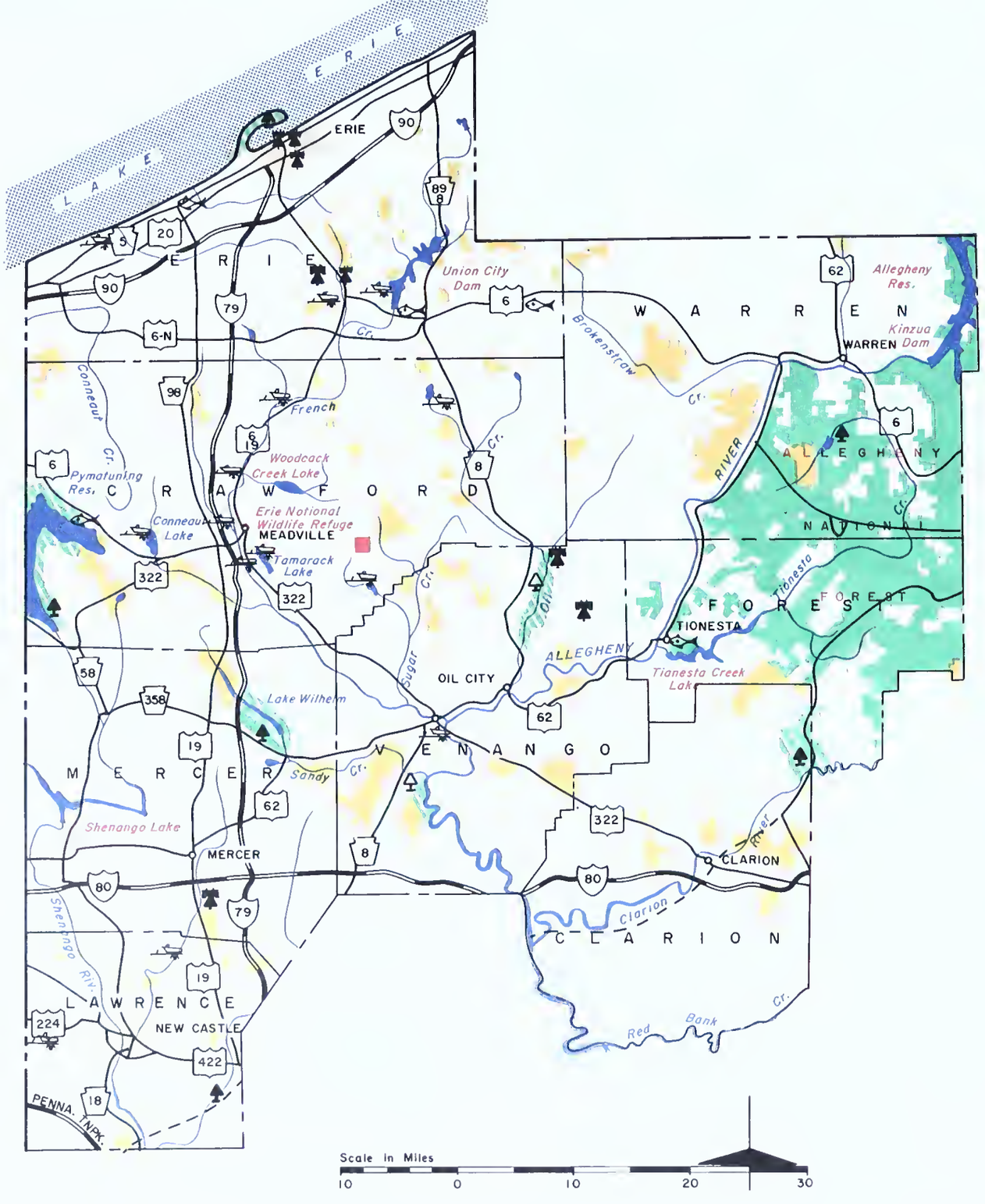
MAP 18

REGION 9



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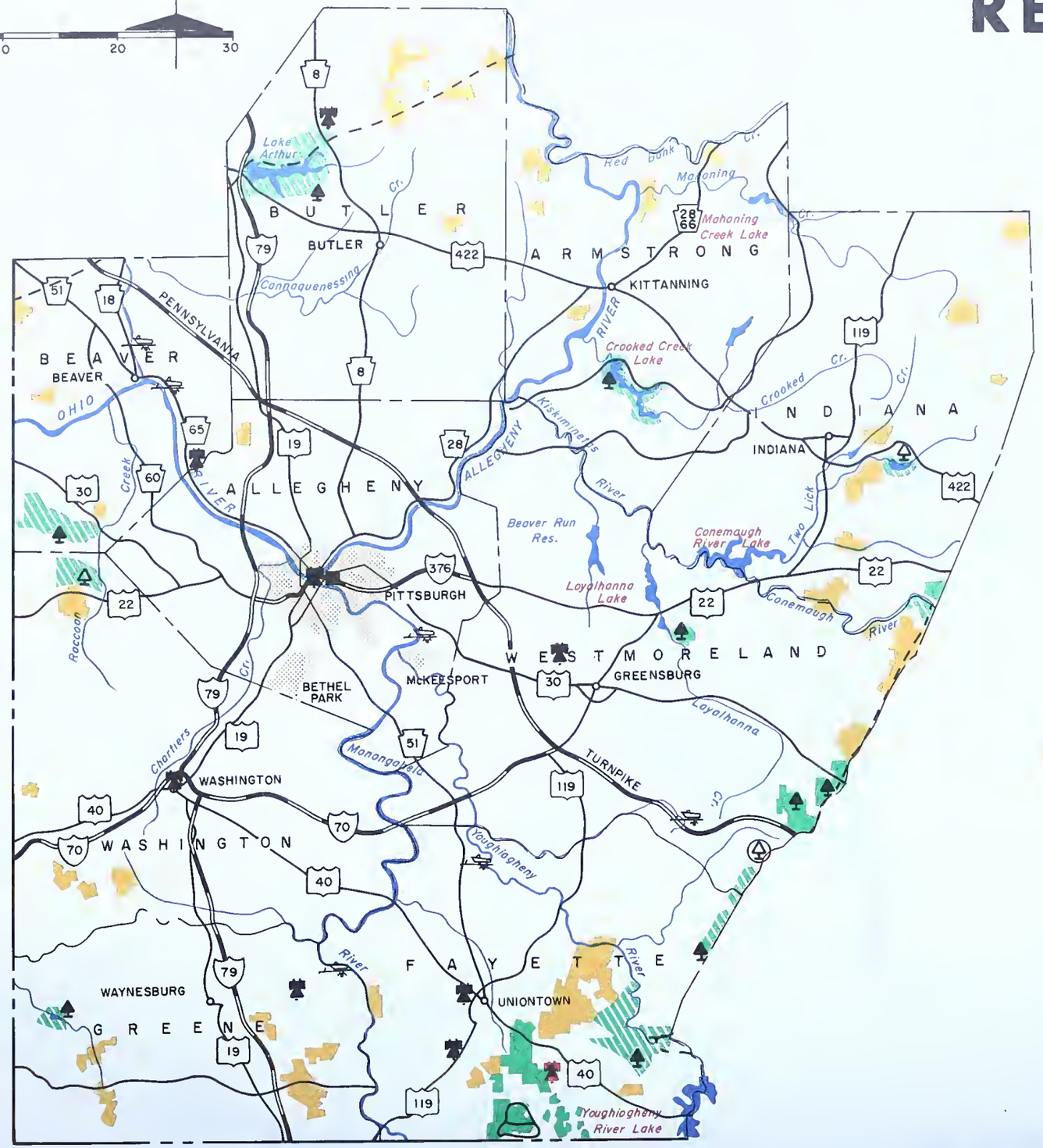
MAP 19

REGION 10



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MAP 20

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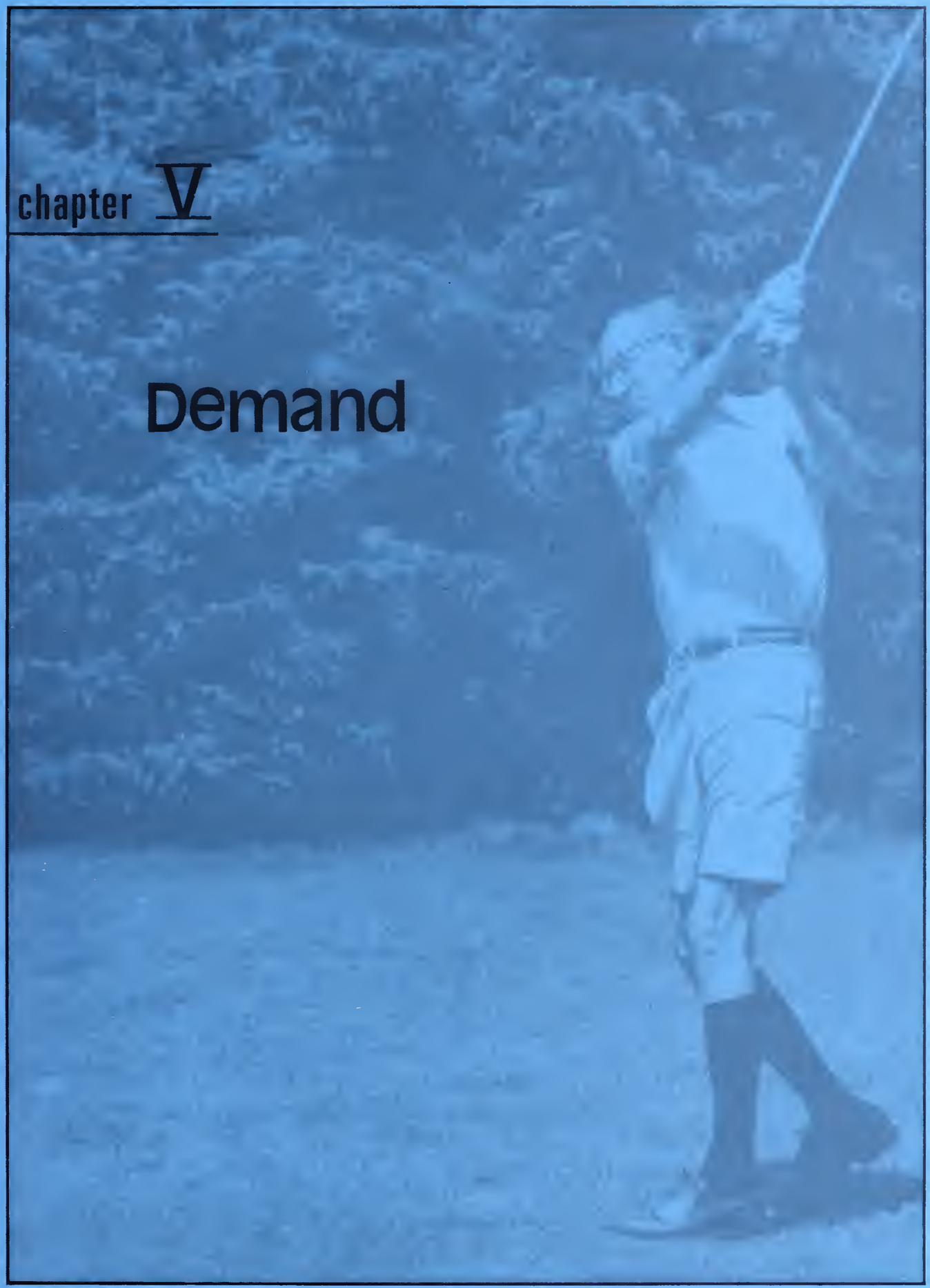


chapter V

Demand

Chapter V

RECREATION DEMAND: PRESENT AND PROJECTED TO 1990

The purpose of a state recreation plan is to synthesize the interplay between supply and demand, actions and policies. The element which links these syntheses is the needs whose identification is the terminus of the first synthesis and the point of departure for the second. The planning problem, then, is one of technique or methodology; how can these syntheses be accomplished.

This chapter presents a unique approach to estimating current demand and projecting future demand. The approach is unique because the system which was used was designed to take into account more factors which influence recreation participation than had been attempted in other state recreation plans. The result is that, because the current estimates are demonstrably more accurate, the five, ten, and fifteen year projections can be used with greater assurance of their validity.

A concept related to recreation demand is *unmet recreation need*, which has to do with the adequacy of supply of facilities in relation to demand. The incidence of unmet need is presumably measured by the degree to which participation would increase if certain barriers deterring participation, principally limitations in supply, were removed. Evidence of unmet need may be obtained by opinion survey; for example, what fraction of nonparticipants are interested in participating, what fraction would participate more often if facilities were closer to home or if public transportation were available, etc.[1] Evidence of unmet need may also be obtained by comparing participation rates, for example, within an age group at different levels of family income.

In this study, however, the emphasis is on the effect that increased levels of supply would have on recreation participation rates. In order to gauge this effect, participation rates have been determined for the 1974 level of supply and for hypothetical 10%, 20%, and 40% increases in supply, above that level for activities for which supply measures are available. The 19 activities for which demand or participation (these two words are frequently used interchangeably) has been measured are:

Swimming
Picnicking
Boating, canoeing, or waterskiing
Fishing
Hunting or sport shooting
Tennis
Golf or miniature golf
Basketball
Baseball or softball
Football
Street-hockey
Bicycling
Horseback riding
Hiking or nature walks
Camping
Off-road motorcycling or riding snowmobiles
Sightseeing or driving for pleasure
Snow-skiing
Ice skating

Most of these activities are active, outdoor activities. However, in the cases of swimming, tennis, basketball, and ice skating no attempt was made to exclude indoor participation.

Measures of Demand

The three measures of participation or demand are:

1. Peak day participation
2. Any-time-during-the-year-participation
3. Activity days

Peak day participation is defined as the number of people[2] participating in an activity on a summer Sunday when the weather is fine. Therefore, peak day participation figures are available only for summer activities.

Summer peak day participation was determined by asking each respondent in the survey what he or she did on the most recent good weather Sunday. The recentness of the Sunday varied according to local weather conditions and also, to a limited extent, because the respondents were allowed to apply their own preferences to what "good weather" is. However, in the survey context, it can be assumed that a good weather Sunday would be regarded as one which would be suitable for outdoor recreation, and, perhaps, one in which the weather was definitely above average. Therefore, peak day figures reflect fair weather across the State and are to be understood as current participation ceilings rather than summer Sunday norms. One of the major advantages in estimating and projecting peak day participation in this manner is that it provides a basis for evaluating design day capacities.

Any-time-during-the-year-participation in an activity is defined as the number of persons participating in the activity at least once in the previous 12 months.

[1]See Pennsylvania Recreation Survey, Principal Findings and Recommendations, Pennsylvania Office of State Planning and Development, Harrisburg, Pa., 1975.

[2]Participation does not include the 0-4 age group because their activities are generally dependent on an adult.

If a person participates in an activity on a particular day, that incidence of participation is counted as an activity day regardless of the length of time involved or the number of other activities participated in on the same day. The total number of such days of participation in an activity over a full year is the annual total *activity days* for the activity.

To some extent the term "activity day" is misleading because it tends to suggest a full day of participation in a single activity. However, a person ordinarily participates for only part of the day in a single activity and may participate in several activities on the same day. For example, sightseeing or driving for pleasure, swimming, and picnicking would very frequently be combined, as would fishing and boating. Therefore, the sum of the activity days across a set of activities is substantially greater than the number of separate days in which at least one of the activities was participated in. The activity day totals for individual activities are primarily useful for making comparisons among different activities.

Since absolute numbers of participants and absolute numbers of activity days are not intuitively meaningful for visualizing the extent of recreation demand or for making comparisons by geographical region or across socioeconomic population groupings, four transformation refractions of these figures will also be used.

1. peak day percent—the percentage participating on a good weather summer Sunday
2. any-time-during-the-year-percent — the percentage who have participated in an activity at least once in the past year
3. annual days per participant—the average number of days over the course of a year in which an activity is participated in by a participating person. This figure is equal to the total activity days for the year divided by the total number of any time during the year participants
4. annual days per capita—the total number of activity days divided by the total population 5 and older

The *annual days per participant* figures are useful for visualizing the character of the participation in an activity over the course of the year, whereas the *annual days per capita* figures are useful for making comparisons among areas or population subgroups as to the extent of participation in an activity. The latter are also useful for estimating the total number of activity days likely to occur for a given geographical area when it can be assumed that the demographic composition of its population is the same as the State's.

There is a simple direct relationship among (1) the annual days per capita, (2) the annual days per participant, and (3) the any-time-during-the-year-percent; namely, the annual days per capita is equal to the annual days per participant times the any-time-during-the-year-percent.

Population Projections

Depending on such demographic characteristics as age, sex, and income the rates of participation and the kinds of activities participated in vary greatly. In order to make demographic-based projections of recreational activity, recreation participation rates for a demographic category must be applied to the projected population for that county. The population estimates for age, sex, and family income for 1974, and the projections for 1980, 1985, and 1990 are presented for the entire State in Chart 1 on the following page, and for the ten Uniform Planning Regions (depicted in Figure 1, page V-7) in Table 1 (at the end of the chapter).

The projections by age and sex for 1980, 1985, and 1990 are the official projections appearing in report no. 73 PPS-3 of the Office of State Planning and Development, November 1973, entitled *Pennsylvania Projection Series Population and Labor Force By Age and Sex for the State and the 67 Counties for 1975, 1980, 1985, and 1990; September 1973 Revisions.* The projections of population by family income in 1974 dollars are transforms of projections of numbers of households by size of household and income in current dollars. The population base for these projections excludes children four or younger.

Overview of Estimates and Projections

The following is a summary or overview of the procedure used to obtain estimates and projections of participation or demand. The procedure will be discussed in greater detail in later sections.

Participation rates in 1974 by age, sex, and family income were obtained through the Pennsylvania Recreation Survey, a scientifically designed telephone survey of 3,000 households conducted in the months of June, July, and August. In addition to age, sex, and family income, participation rates reflecting education, race, and car ownership were also obtained. However, because these factors are not explicitly recognized in the State's population projections, they have not been used in these projections, although they will be in future planning efforts.

The estimates of recreation participation for 1974 were obtained by multiplying age, sex, and income counts by their respective participation rates (e.g., the number of people in a given age group multiplied by the percentage of people in that age group participating in an activity). Then a weighted average was

Chart 1.—POPULATION 5 AND OVER, PENNSYLVANIA, PROJECTED TO 1990
(Population in millions)

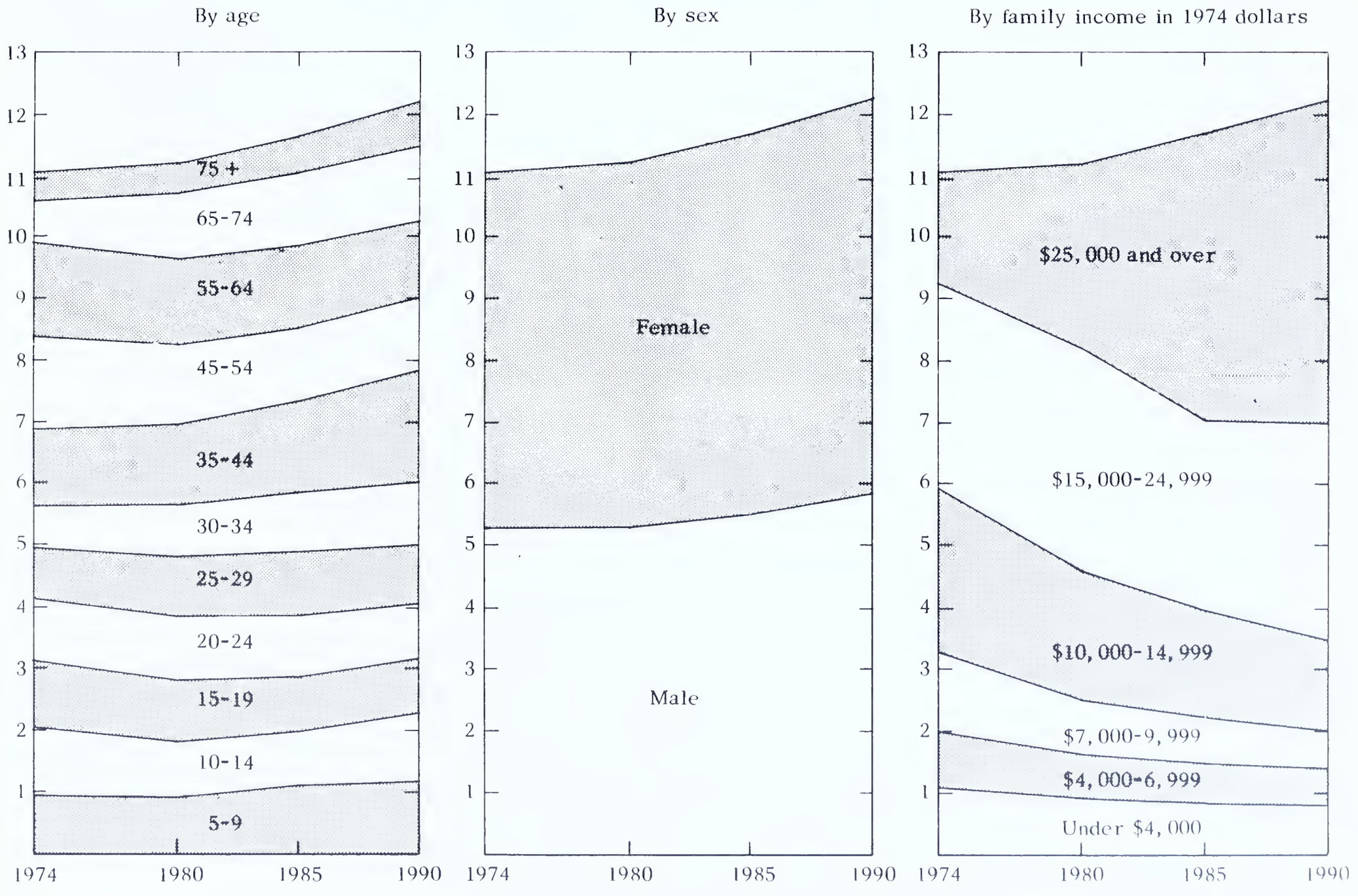
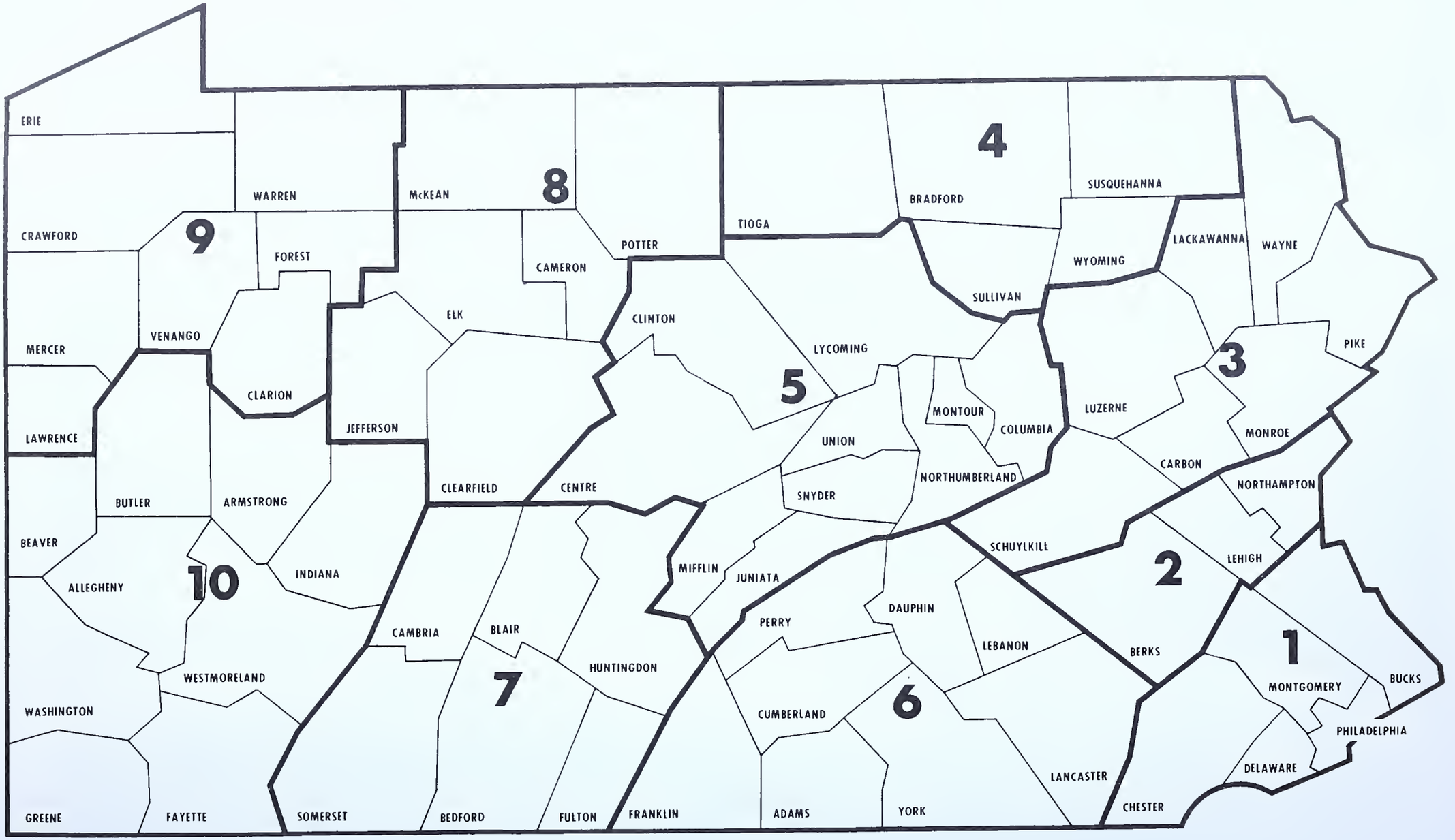


Figure 1.—COMMONWEALTH UNIFORM PLANNING REGIONS



OFFICE OF STATE PLANNING AND DEVELOPMENT

obtained for each activity of the age, sex, and income based estimates to produce estimated participation for the entire population.

This method was also used to project demographic-based participation rates for 1980, 1985, and 1990, except that projected population counts were used.

The next step was introducing the effect of supply into the projections. Both the quantity of supply and its proximity were considered by employing a set of county accessible-supply fractions which correspond to half-hour, and one, two, and four hour driving times. For example, the one hour accessible-supply fraction for a county is the share of state supply that can be reached from within that county in one hour. Coefficients reflecting the impact of accessible-supply on recreation participation were determined by a multiple regression analysis which related county participation to the expected demographic participation factors and the accessible-supply fractions. The regression coefficients were applied to the no increase (0%, and the 10%, 20%, and 40% supply increment levels to determine the effect on recreation participation at each of these supply levels.

In the final set of projections demographically representative participation rates were elevated over time to reflect increases due to increasing leisure time and a greater desire among the population to participate. From the survey, ceiling participation was derived from the sum of current participants and interested nonparticipants. To account for the aforementioned factors, the number of participants was raised one-tenth of the way toward this ceiling annually. Activity days per participant and the ratio of the peak day percent to the percent participating annually were held constant.

Current Recreation Participation for the 19 Activities

Current participation rates are the point of departure for estimating current recreation demand and for projecting future demand. The estimates presented in Table 2 represent weighted average participation across age, sex, and income categories. These participation rates differ slightly from raw survey rates because State Census data rather than survey proportions were used to determine demographic proportions in the population. This was done because the survey sample is underrepresented in the high and low income groups, so that activities positively correlated with income show up with lowered participation rates.

Chart 2 shows graphically the two key participation measures: *the percent of the population participating at least once a year* and *activity days per capita*. Thirteen activities account for three or more days per capita and all but one are participated in by more than 5 percent of the population. The four activities—basketball, baseball or softball, football, and street hockey—which are frequently lumped together in recreation studies as "other outdoor games or sports" account for 21.3 activity days per capita compared with 31.1 days for bicycling, 23.2 days for swimming, and 16.9 days for sightseeing or driving for pleasure. The next two most important activities in terms of activity days are two of the "other" games or sports, basketball and baseball, with 8.8 and 7.9 days per capita, respectively. Hiking or nature walks, tennis, and picnicking are next in order with 7.2, 6.2, and 6.0 days per capita, respectively. It may be noted that if walking for pleasure had been included with hiking or nature walks the number of activity days would have been substantially increased.

The statewide participation rates presented characterize differences in recreation demand among activities and, as has been stated, are useful in making quick estimates of recreation demand for regions, counties, or municipalities where it can be assumed that the demographic composition and recreation preferences of the area are comparable to those of the State. The statewide rates themselves, however, have not been used in projecting recreation demand into the future. Rather, they are the result of the application of the participation rates to the demographic categories which are displayed in Table 3 (by age) and Table 4 (by sex and family income).

The application of participation rates to population counts by age, by sex, and by income will produce three somewhat different participation totals. The statewide rates shown represent a weighted average of the three totals. The weights used were produced by the following procedure. The State was divided along telephone exchange and county lines into 47 areas with approximately equal numbers of respondents in the Pennsylvania Recreation Survey. In each of the 47 areas age, sex, and income participation rates were applied to age, sex, and income survey counts to produce demographic expected age, sex, and income participation totals. These totals differ from each other and the actual survey participation. A mathematical compromise among the age, sex, and income totals was made which produced a set of calculated totals as close as possible to the actual survey totals. This is a general description of what was done. More precisely, a set of weights was determined by computer which minimized the sum of squared deviations of the actual survey participation from the demographic-based expected survey participation subject to the conditions that the weights be nonnegative and add to 1. The nonnegative restriction produced weights which are far more intuitively meaningful at the expense of a very small increase in the sum of squared deviations. Table 5 gives the resulting weights and the sum of squared deviations relative to the total sum of squares (which is comparable to $1\text{-}R^2$ in tradi-

tional multiple regression analysis). In interpreting the magnitude of the squared deviations one should recall that the areas were relatively equal in numbers of respondents so that for many activities there were only 1, 2, or 3 participants per analysis area. Had areas such as counties which are unequal in size been used, values much closer to zero would have been obtained, but the weights obtained essentially would have reflected the situation in the largest counties. It should also be noted that the effect of a high income weight is to cause participation to increase in projections of future participation in response to projected rising real incomes.

Demographic-based expected recreation participation varies by geographical region in relation to the demographic characteristics of the regions. Table 6 contrasts estimated current recreation participation with demographic-based expected participation by region. Chart 3 shows current activity days per capita by region for 8 selected activities.

Demographic-Based Projections of Recreation Participation

Application of the recreation participation rates in Tables 3 and 4 to the projected population counts in Table 1 using the demographic weights in Table 5 results in the demographic-based projections of recreation participation to 1990 shown in Table 7. Activity days per person 5 and over projected to 1990 are shown graphically in Chart 4. Holding the demographic participation rates constant over time in effect assumes that the supply of recreation facilities is allowed to grow sufficiently to permit the growth in recreation participation presented in Table 6. Activities which are presently constrained by limitations in supply, for example tennis and skiing, could exhibit growth at dramatically slower or faster rates depending on the growth or lack of growth in the availability of facilities.

The behavior of the demographic-based projections of recreation participation depends entirely on the projected change in the population composition because participation rates, themselves, are held constant. The aging of the population tends to depress participation in general, while rising real income tends to increase participation for activities which are income correlated.

The activities which are growing faster than the population are swimming, boating, caneoing or waterskiing; tennis; golf or minature golf; and snow skiing. The activities which are essentially constant relative to population are picnicking, fishing, hunting or sport shooting, bicycling, horseback riding, hiking or nature walks, camping, off-road motorcycling or riding snowmobiles, sightseeing or pleasure driving, and ice skating. The outdoor games and sports of basketball, baseball, football, and street hockey show slight declines because the population base is aging. However, it should be noted that a dramatic growth in participation rates is expected in the case of street hockey so the demographic-based projections are unrealistically low.

Quantifying Recreation Supply

Development of the accessible-supply fractions required that recreation supply for each county be quantified. For nine activities, the supply measures used were obtained from the Pennsylvania Inventory of recreation areas and facilities:

Activity	Supply Measure
Swimming	Square feet of pools, linear feet of beach
Picnicking	Number of picnic tables
Boating, canoeing or waterskiing	Miles of boatable waters, acres of boatable lakes
Fishing	Miles of fishable waters, acres of fishable lakes
Golf	Number of holes
Hiking or nature walks	Miles of trail
Camping	Number of campsites
Skiing	Number of ski slopes, number of ski lifts
Ice skating	Number of sites with ice skating

For three additional activities the supply measures used were obtained from other sources:

Activity	Supply Measure
Hunting	Acres of huntable land (Source: Pa. Game Commission 1971 Recreation Plan: *A Look Ahead*)
Horseback Riding	Number of pleasure horses (Source: 1967 U.S. Dept. of Agriculture Survey)
Driving for Pleasure	Miles of scenic roads (Source: PennDOT 1974 Scenic Highway Proposal)

For the remaining seven activities supply measures were not available.

Chart 2.—ANNUAL RECREATION PARTICIPATION, POPULATION 5 AND OVER, 19 ACTIVITIES, PENNSYLVANIA, 1974

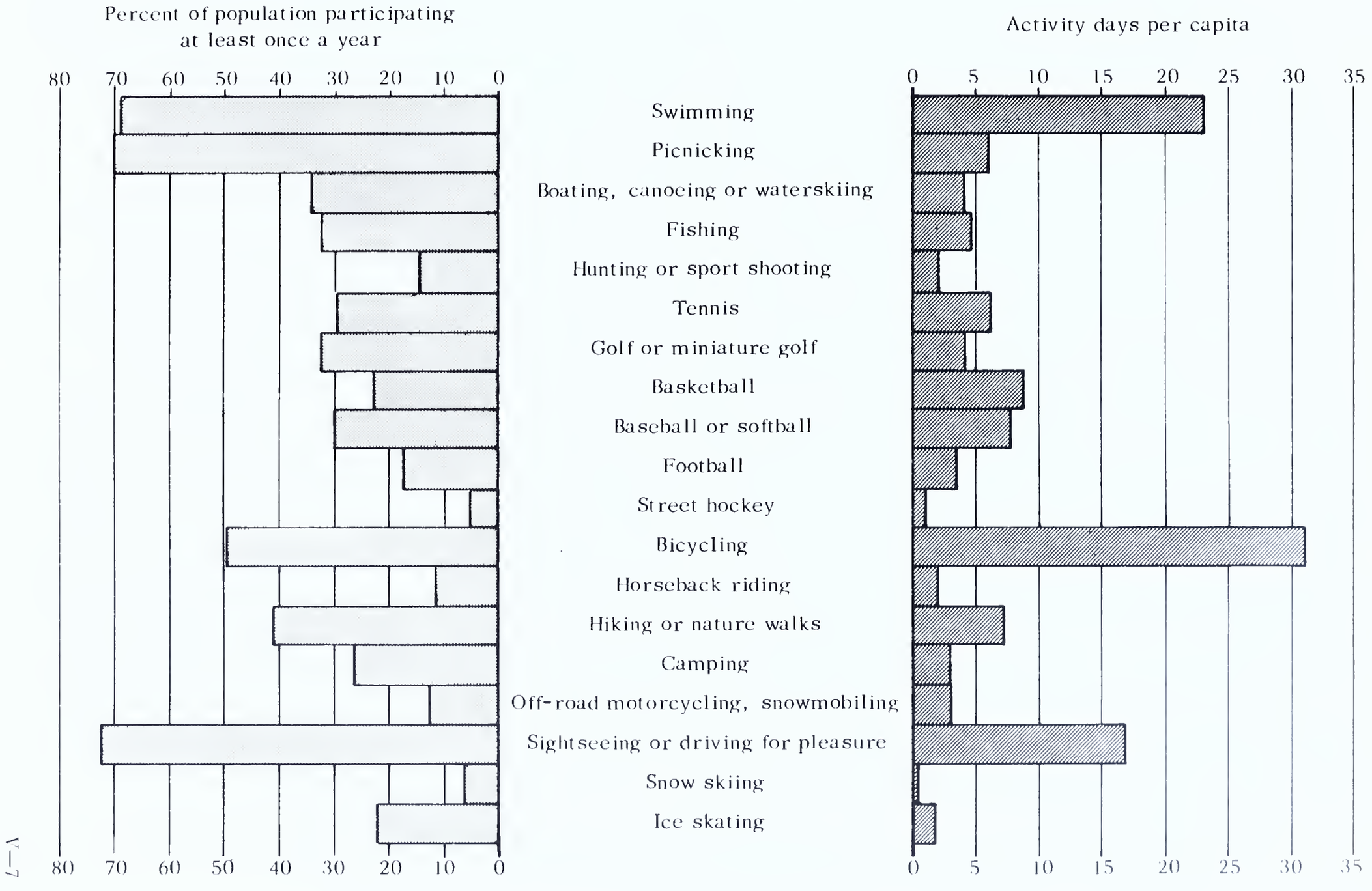
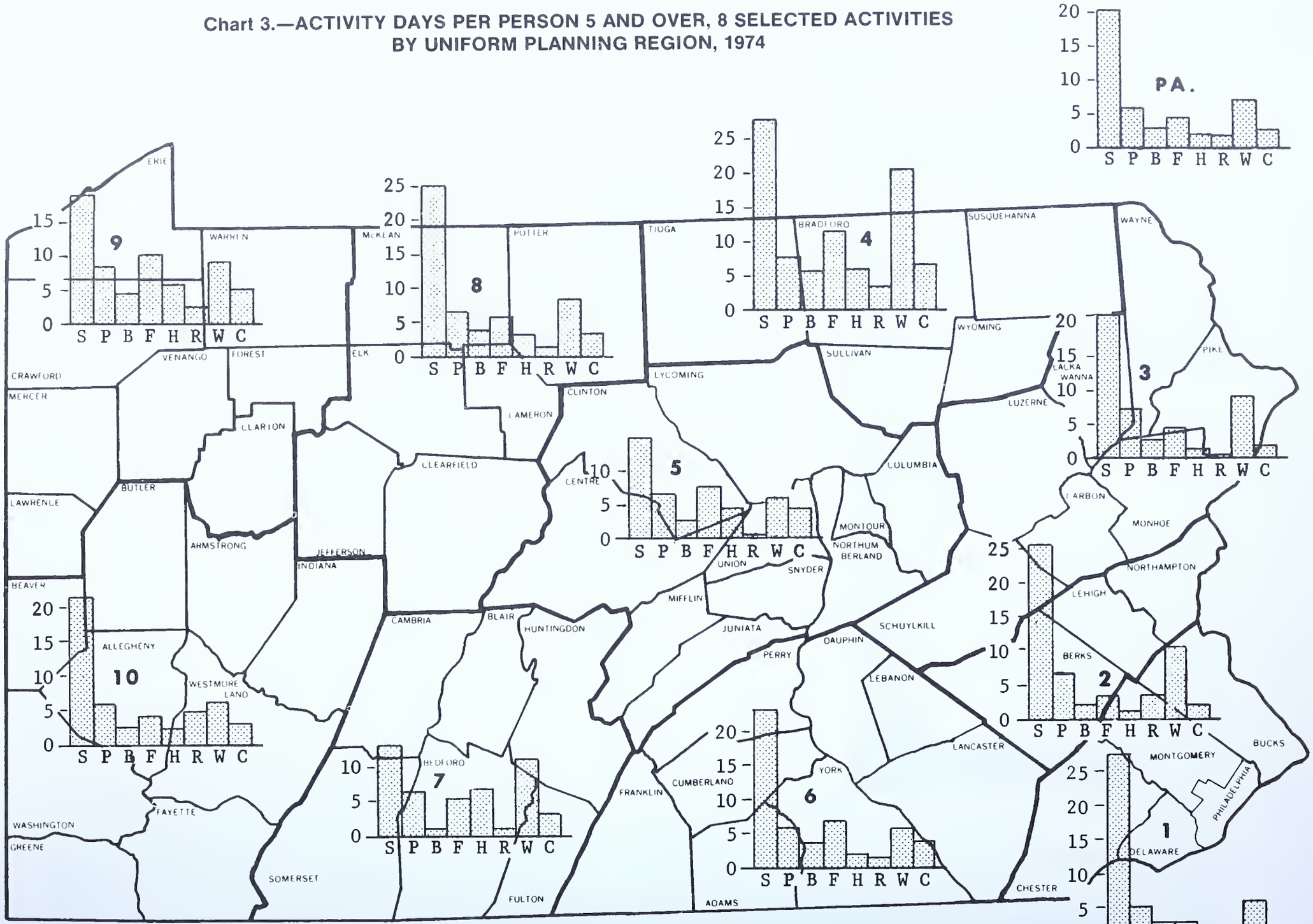
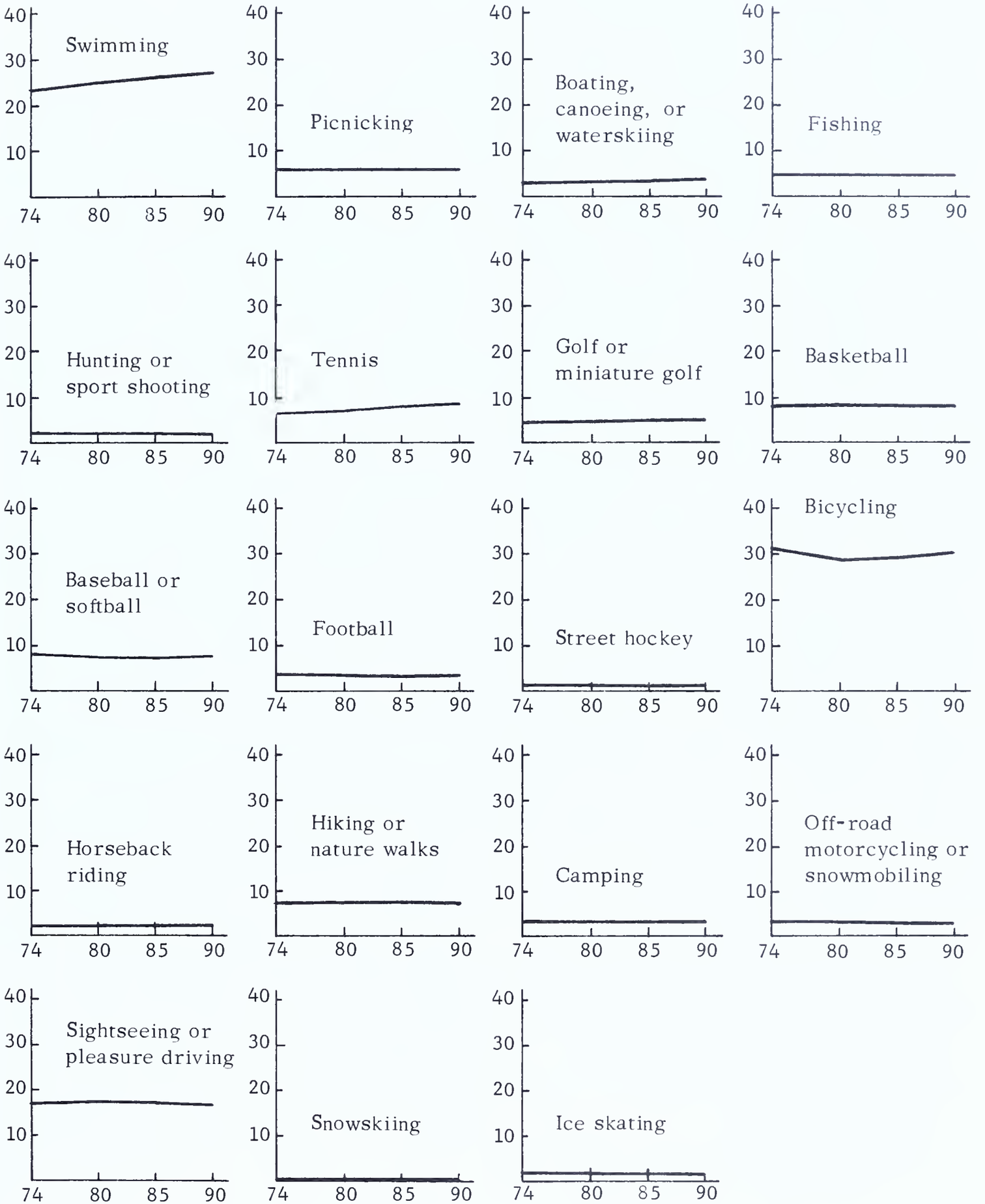


Chart 3.—ACTIVITY DAYS PER PERSON 5 AND OVER, 8 SELECTED ACTIVITIES BY UNIFORM PLANNING REGION, 1974



S-Swimming P-Picnicking B-Boating, canoeing or waterskiing F-Fishing
H-Hunting or sport shooting R-Horseback riding W-Hiking or nature walks C-Camping

Chart 4.—DEMOGRAPHIC-BASED ACTIVITY DAYS PER PERSON 5 AND OVER, 19 ACTIVITIES, PENNSYLVANIA, PROJECTED TO 1990



Proximity of Recreation Supply

The proximity of recreation facilities to the population varies considerably across the State. It also exerts considerable influence on recreation participation in certain areas. Table 8 gives supply indices relative to population for 12 activities for which facilities inventory data is available. A quick look at this table would show that Regions One and Ten, which contain, respectively, Philadelphia and Pittsburgh, are generally under supplied and that Region Four (the Northern Tier) is heavily oversupplied (see Chart 5).

In order to estimate the effects that supply proximity have on participation, a stepwise multiple regression analysis was conducted which related the survey estimates of actual county recreation participation to the county demographic-based expected participation and the recreation supply which can be reached by driving in a half hour, and in one, two, and four hours. For example, Figure 2 shows counties which can be reached in half an hour and in one, two, and four hours of driving time from Philadelphia. More explicitly, the dependent variable is the county's fraction of the State recreation participation, and the independent variables are the county's fraction of the demographic-based expected participation and the fractions of the State supply that can be reached in the half hour and one, two, and four hour time intervals. Table 9 gives the regression coefficients and the square of the coefficient of multiple correlation. The complements of the demographic coefficients in the first column may be taken as indices of the importance of supply. A coefficient under .6 would indicate that an activity's growth is very dependent on increases in supply. Based on this analysis, the most supply dependent activities in Pennsylvania are hunting or sport shooting, horseback riding, snow skiing, golf or miniature golf, fishing, and camping.

There are five limitations or shortcomings to this analytical technique:

—The simple linear model is not appropriate for counties with small populations and heavy recreation supply; for example Sullivan or Forest.

—The accessible supply in bordering states, the Jersey Shore, for example, is not included in the analysis.

—Fractions of counties are not recognized nor is the supply which can be reached in 15 minutes.

—The recreation survey sample is too small for the less popular activities.

—Supply data for portions of counties were not available which prevented establishing analysis areas with approximately equal population.

Effect of Supply on Recreation Participation

The effect which an expanded supply might be expected to have on participation was investigated by utilizing the coefficients of the multiple regression analysis for 11 activities for which an expanded supply was considered to be feasible and for which supply data were available. These activities are picnicking; boating, canoeing or waterskiing; fishing; golf or miniature golf; horseback riding; hiking or nature walks; camping; sightseeing or driving for pleasure; snow skiing; and ice skating. Of these, the most supply-responsive activities are skiing, horseback riding, golf or miniature golf, and camping, for each of which a 40 percent expansion in supply would apparently result in a more than 20 percent increase in activity days; and fishing, for which a 10 percent increase in supply would cause an indicated 4 percent increase in activity days. Activities which are moderately responsive to supply are ice skating, swimming, and picnicking, for each of which a 40 percent increase in capacity would apparently result in approximately a 10 percent increase in activity days. Sightseeing or driving for pleasure is relatively unresponsive to supply, as is boating, canoeing or waterskiing. Table 10 gives the estimated 1980 activity days for the 1974 supply and 10%, 20%, and 40% expansions in the 1974 supply. The supply increments were assigned to supply-deficient counties in proportion to the county's deficiency relative to its population, and subject in certain instances to county supply ceilings. Then the one-half hour, one-hour, two-hour, and four-hour accessible-supply-fractions were computed for each supply increment for each county and entered into regression equations.

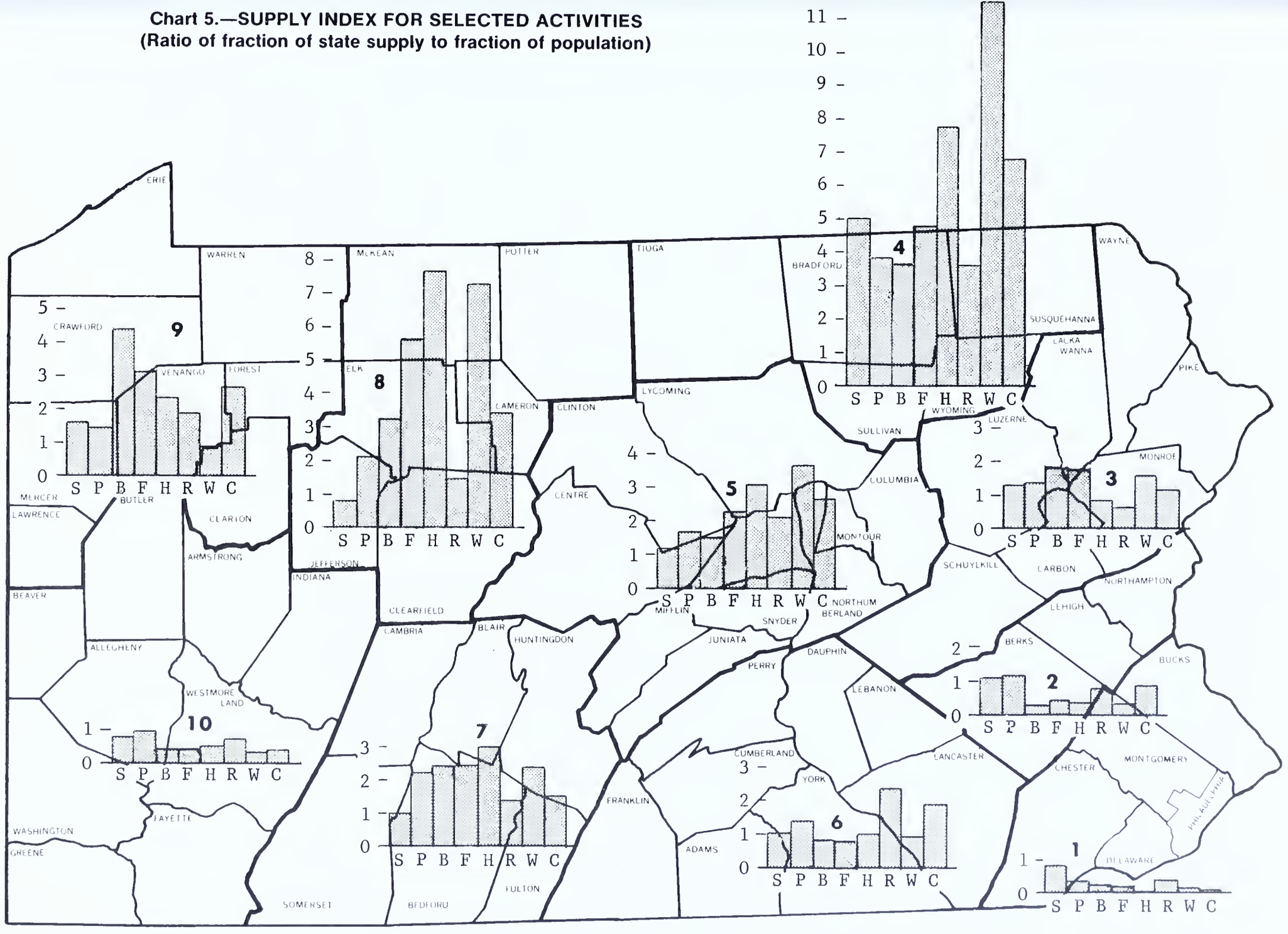
Growth-Adjusted Demographic-Based Projections of Recreation Participation

The projections of recreation demand presented in Chart 4 and Table 7 are based on 1974 participation rates for each demographic category for the projection years of 1980, 1985, and 1990.

However, because it is reasonable to assume that due to increasing amounts of leisure time and increasing participation among women the participation rates themselves will change, a factor reflecting these changes was applied to the projections.

The first step in the process of adjusting the participation rates was to determine from the survey for each activity the statewide ceiling percentage of the population participating at least once a year. For each activity except street hockey, the ceiling participation was taken to be the sum of the percentage participating in the base year plus the percentage that did not participate but expressed an interest in doing so. For street hockey, a new and rapidly growing sport, the

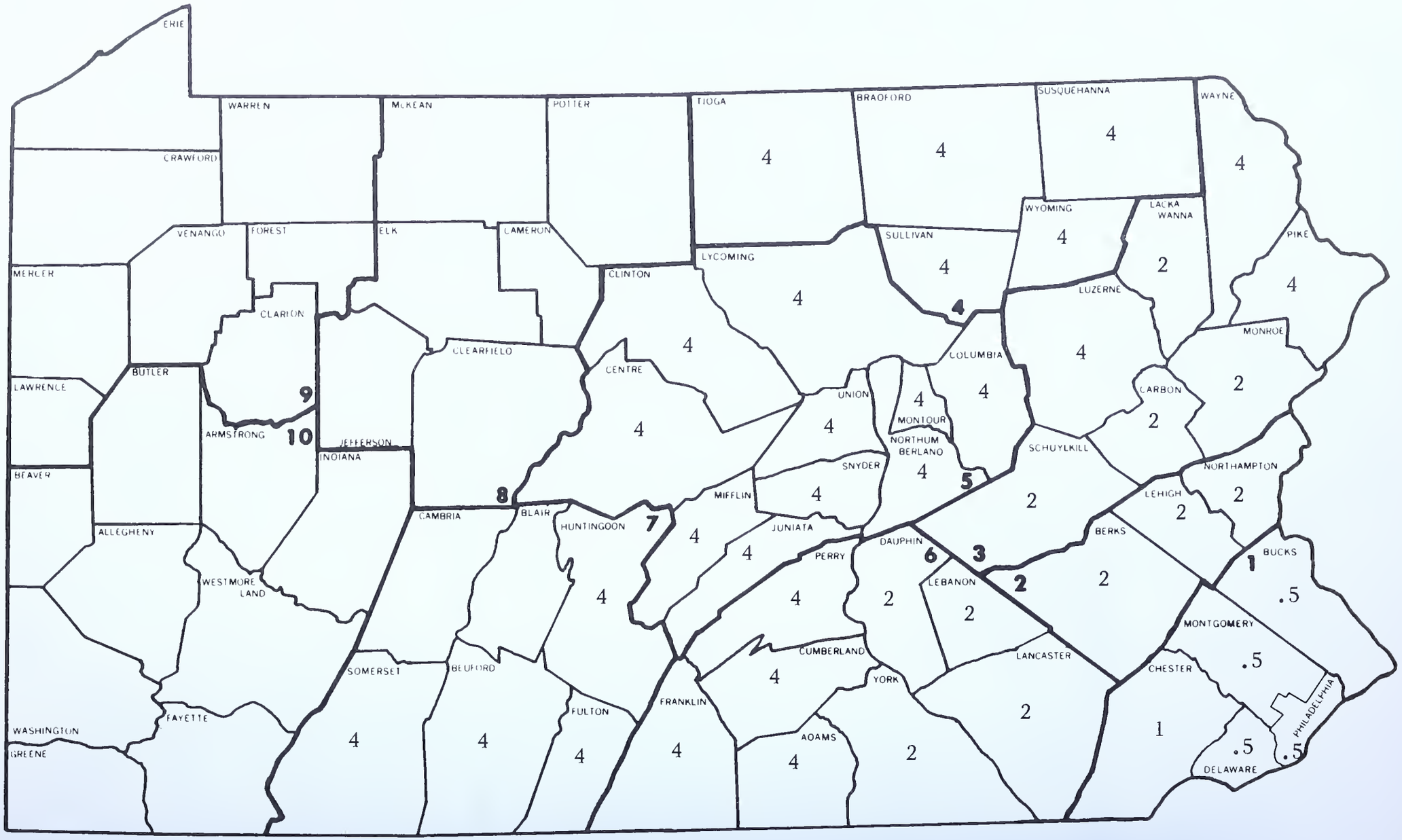
Chart 5.—SUPPLY INDEX FOR SELECTED ACTIVITIES
(Ratio of fraction of state supply to fraction of population)



S-Swimming P-Picnicking B-Boating, canoeing or waterskiing F-Fishing H-Hunting or sport shooting

R-Horseback riding W-Hiking or nature walks C-Camping

Figure 2.—COUNTIES REACHABLE IN .5, 1, 2, AND 4 HOURS DRIVING TIME FROM PHILADELPHIA



ceiling participation was taken to be the same as that of basketball, a popular and comparably active sport.

All ceiling participation rates are, of course, greater than actual participation rates, but even when examined from this perspective, growth rates in several activities appear to be slight (see Table 11). These activities are swimming, picnicking, and sightseeing or driving for pleasure and are the ones already involving the greatest number of participants.

The activities showing the greatest rates of growth are street hockey; snow skiing; horseback riding; off-road motorcycling or riding snowmobiles; camping; tennis, boating, canoeing or waterskiing, all of which have ceilings of at least 40 percent above present participation.

With the exception of street hockey, the percentage participating in each activity was advanced each year 10 percent of the difference between the ceiling and the percentage participating that year. Street hockey was advanced at a 20 percent rate. This method results in more growth in the short term and diminished growth as the ceiling is approached.

In the next step, complements of the percentages shown in Table 11 were computed for all years and indices of interested nonparticipants were obtained by using 1974 as the base. Then the demographic-based county population projections of nonparticipants (county population minus participation) for each year were multiplied by the index for the year (i.e., a 10% shift from nonparticipation to participation) to obtain growth-adjusted projections of the number of interested nonparticipants who become participants. The original ratio of peak day participants to any-time-during-the-year participants was used to produce growth-adjusted estimates of peak day participants. The value of activity days per participant which had been orginally projected was applied to the growth adjusted population of participants to obtain a growth-adjusted demographic-based projection of activity days. Table 12 and Chart 6, which correspond to Table 7 and Chart 4, give the growth-adjusted demographic-based projected recreation participation to 1990.

Supply and Growth-Adjusted Demographic-Based Projections of Recreation Participation

The growth-adjusted demographic-based projections assume that supply will expand sufficiently or facilities will be used intensively enough to permit the expanded participation. Supply can be treated explicitly using the growth-adjusted demographic-based projections by assigning incremental supply to counties in the same manner as discussed for 1980. Table 13 gives projections of activity days at the 0%, 10%, 20% and 40% supply increment levels over 1974. Since the regression equations which were used are linear, a given set of half-hour and one, two, and four-hour supply fractions make the same contribution to recreational activity regardless of the level of demographic participation. Therefore, the growth in activity days from 1980 to 1985 to 1990 at any supply level reflects more intensive utilization of facilities. A more realistic use of the figures in Table 13 would be to treat them as projections of activity days associated with alternative supply levels in each projection year. Accordingly, the supply increments have been translated into supply indices. The qualifications stated in connection with the 1980 supply apply here also.

Conclusion

As has been seen, the anatomy of demand can be a complex subject. The intention of this chapter has been to try to explain how it can be dissected. The statistical findings of this study which are presented in the tables on the following pages are applied to specific kinds of recreational activities in the next chapter which deals with recreational needs.

Chart 6.—GROWTH-ADJUSTED DEMOGRAPHIC-BASED ACTIVITY DAYS PER PERSON 5 AND OVER, 19 ACTIVITIES, PENNSYLVANIA, PROJECTED TO 1990

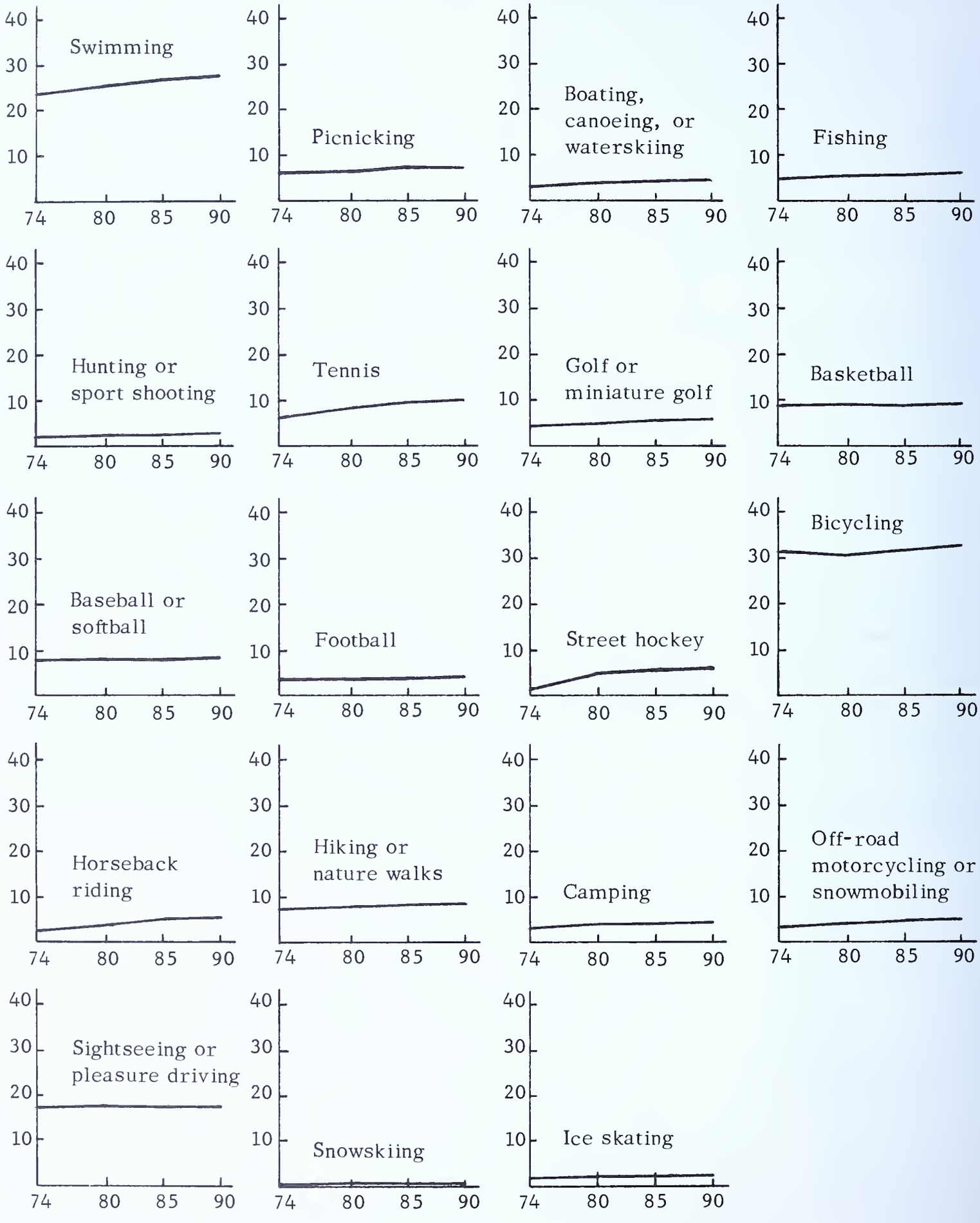


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TABLE 1

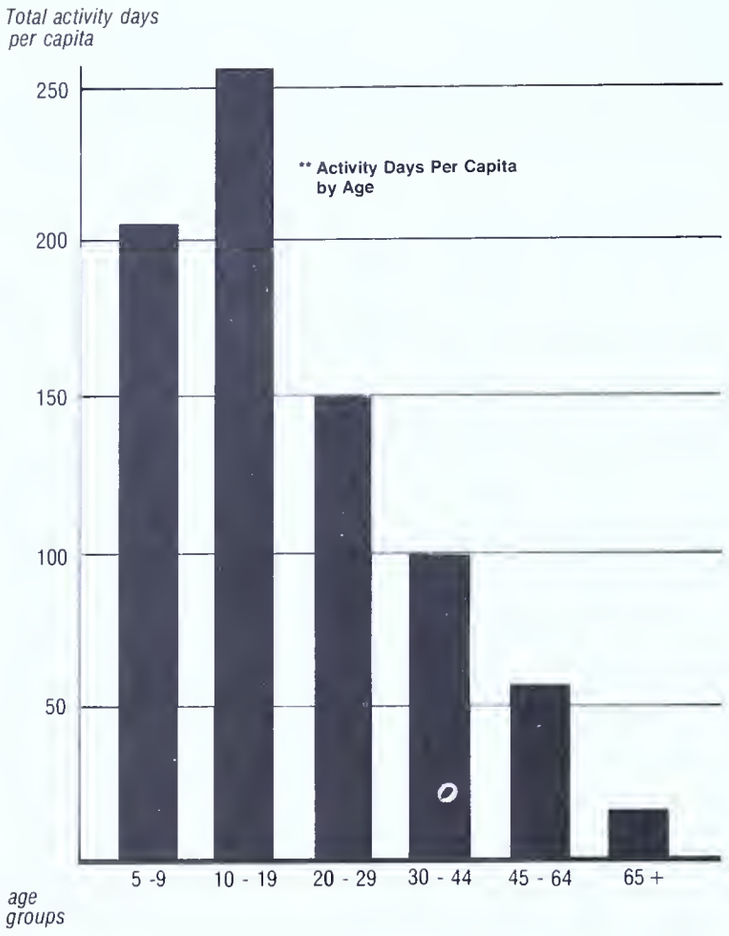
POPULATION 5 AND OVER, PENNSYLVANIA, PROJECTED TO 1990, BY AGE, SEX, AND FAMILY INCOME IN 1974 DOLLARS, BY REGION

(Population in 000's)

	All Penna.	Region One	Region Two	Region Three	Region Four	Region Five	Region Six	Region Seven	Region Eight	Region Nine	Region Ten
Total, 1974	11,053	3,630	724	828	144	509	1,195	456	216	678	2,673
Age:											
5 - 9	948	317	60	63	15	43	108	39	20	62	221
10 - 14	1,084	363	68	71	16	49	121	44	22	70	258
15 - 19	1,113	367	69	74	15	54	120	47	22	71	274
20 - 24	987	327	60	65	12	54	106	41	18	63	241
25 - 29	812	288	53	52	10	41	93	29	13	47	185
30 - 34	692	243	46	45	10	30	81	25	12	42	157
35 - 44	1,246	418	85	88	16	55	143	48	23	74	294
45 - 54	1,477	478	102	116	17	62	154	62	28	80	372
55 - 64	1,312	410	90	120	15	56	130	57	27	78	329
65 - 74	896	275	60	88	11	42	90	41	20	52	217
75 - +	486	144	31	46	7	23	49	23	11	31	123
Sex:											
Male	5,257	1,713	346	391	70	248	572	219	104	326	1,267
Female	5,796	1,916	378	437	74	261	623	237	112	352	1,406
Family income:											
Under $4,000	1,096	344	59	90	18	71	102	49	25	73	265
$4,000 - $6,999	910	268	50	89	15	53	91	48	23	58	213
$7,000 - $9,999	1,233	335	69	128	22	77	134	65	33	83	289
$10,000 - $14,999	2,671	755	170	231	39	140	296	123	62	188	665
$15,000 - $24,999	3,323	1,182	247	200	35	115	376	117	52	188	812
$25,000 and over	1,820	746	129	90	15	53	195	54	21	88	429
Total, 1980	11,183	3,686	748	828	145	524	1,238	450	215	683	2,649
Age:											
5 - 9	890	281	62	63	14	43	104	35	16	58	214
10 - 14	902	302	60	62	14	44	106	36	18	59	202
15 - 19	1,008	344	66	64	13	54	114	38	20	64	229
20 - 24	1,039	362	65	64	11	53	110	40	21	65	249
25 - 29	982	335	61	63	11	48	108	39	18	61	238
30 - 34	832	297	56	54	11	39	98	29	13	48	186
35 - 44	1,291	447	89	89	19	55	155	48	23	77	289
45 - 54	1,291	422	92	101	16	55	146	51	23	76	309
55 - 64	1,388	436	96	124	17	58	143	60	27	82	345
65 - 74	1,059	313	72	111	14	50	104	50	24	62	259
75 - +	501	145	30	50	6	24	48	24	13	32	129
Sex:											
Male	5,286	1,722	356	391	71	257	587	215	103	328	1,246
Female	5,897	1,964	392	437	74	267	651	235	112	355	1,403
Family income:											
Under $4,000	918	291	50	90	14	60	89	39	20	59	218
$4,000 - $6,999	706	215	41	89	11	39	72	34	17	45	167
$7,000 - $9,999	868	256	48	128	14	50	96	43	21	52	198
$10,000 - $14,999	2,080	594	126	232	33	116	238	97	49	140	492
$15,000 - $24,999	3,639	1,138	254	200	46	166	417	150	72	236	888
$25,000 and over	2,971	1,191	229	90	27	92	325	87	37	150	686

TABLE 1 (continued)

	All Penna.	Region One	Region Two	Region Three	Region Four	Region Five	Region Six	Region Seven	Region Eight	Region Nine	Region Ten
Total, 1985	11,623	3,825	783	880	151	538	1,289	469	220	707	2,760
Age:											
5 - 9	1,125	367	77	76	16	52	129	45	20	70	273
10 - 14	881	278	61	62	13	42	103	35	15	57	213
15 - 19	873	290	58	60	12	45	100	35	18	56	200
20 - 24	966	335	62	62	11	53	103	37	19	60	224
25 - 29	1,019	362	64	63	10	46	108	39	20	63	241
30 - 34	979	336	62	63	11	44	110	39	17	61	236
35 - 44	1,507	535	104	100	21	66	180	54	24	88	336
45 - 54	1,158	384	83	87	17	51	139	45	21	67	264
55 - 64	1,351	425	96	120	17	57	147	57	25	79	328
65 - 74	1,158	341	80	121	16	53	115	54	25	68	284
75 - +	606	172	37	65	8	30	56	30	15	37	157
Sex:											
Male	5,498	1,783	373	421	74	265	610	225	106	341	1,301
Female	6,125	2,042	410	459	77	273	679	244	114	366	1,459
Family income:											
Under $4,000	836	266	46	70	12	51	83	36	17	53	201
$4,000 - $6,999	631	192	37	56	10	34	64	29	15	40	153
$7,000 - $9,999	727	222	41	71	11	38	79	35	16	43	171
$10,000 - $14,999	1,738	499	100	164	27	96	196	82	41	119	413
$15,000 - $24,999	3,091	979	209	241	41	144	352	128	61	196	739
$25,000 and over	4,600	1,666	349	279	49	174	516	159	70	256	1,083
Total, 1990	12,220	4,041	830	913	158	571	1,380	486	231	744	2,865
Age:											
5 - 9	1,190	405	81	76	16	55	138	44	22	74	280
10 - 14	1,122	365	77	76	16	52	129	44	20	70	272
15 - 19	875	274	61	62	13	46	102	35	15	57	210
20 - 24	875	290	56	60	11	49	98	35	18	56	196
25 - 29	963	339	62	62	10	50	104	36	19	59	221
30 - 34	1,021	364	65	63	10	44	111	39	20	63	243
35 - 44	1,778	620	117	116	22	80	205	67	30	107	414
45 - 54	1,238	424	88	89	19	52	151	46	2	73	275
55 - 64	1,205	381	89	106	17	52	142	49	22	69	278
65 - 74	1,225	367	87	124	17	55	131	55	25	71	293
75 - +	735	211	47	80	10	36	69	36	18	45	185
Sex:											
Male	5,805	1,888	398	440	78	285	656	234	112	360	1,354
Female	6,415	2,153	432	473	80	286	724	252	119	384	1,511
Family income:											
Under $4,000	776	251	44	63	11	47	80	32	15	48	185
$4,000 - $6,999	582	179	36	49	9	32	61	26	13	37	141
$7,000 - $9,999	667	207	38	61	10	35	74	30	15	11	156
$10,000 - $14,999	1,416	432	78	134	22	76	164	63	32	88	328
$15,000 - $24,999	3,521	1,098	237	273	46	170	409	148	71	228	841
$25,000 and over	5,258	1,874	398	333	60	211	593	187	85	302	1,214



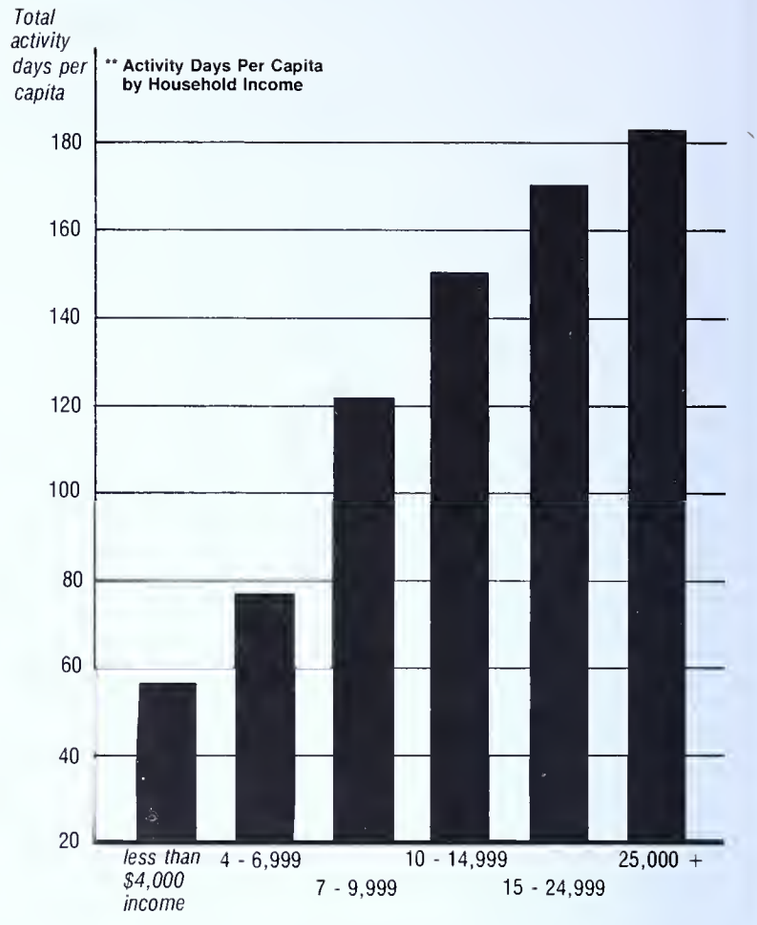


TABLE 2

RECREATION PARTICIPATION AND PARTICIPATION RATES, PENNSYLVANIA, 1974

	Participants 5 and over						
	Summer Peak day		Anytime during year		Annual activity days		
Activity	(000's)	% of pop. 5 and over	(000's)	% of pop. 5 and over	(000's)	Per capita	Per participant
Swimming	4,066	36.8	7,641	69.1	256,790	23.2	33.6
Picnicking	3,083	27.9	7,735	70.0	66,599	6.0	8.6
Boating, canoeing, waterskiing	833	7.5	3,742	33.9	32,833	3.0	8.8
Fishing	846	7.7	3,541	32.0	52,322	4.7	14.8
Hunting, sport shooting	141	1.3	1,574	14.2	23,358	2.1	14.8
Tennis	1,073	9.7	3,255	29.4	69,065	6.2	21.2
Golf or miniature golf	914	8.3	3,582	32.4	46,827	4.2	13.1
Basketball	630	5.7	2,480	22.4	97,761	8.8	39.4
Baseball, softball	1,116	10.1	3,579	32.4	87,584	7.9	24.5
Football	271	2.5	1,903	17.2	38,734	3.5	20.4
Street hockey	61	0.6	5,415	4.9	12,651	1.1	23.4
Bicycling	2,479	22.4	5,433	49.2	343,656	31.1	63.3
Horseback riding	217	2.0	1,242	11.2	22,340	2.0	18.0
Hiking or nature walks	1,257	11.4	4,484	40.6	79,589	7.2	17.8
Camping	565	5.1	2,909	26.3	32,297	2.9	11.1
Off-road motorcycling, snowmobiling	197	1.8	1,354	12.2	33,676	3.0	24.9
Sightseeing or driving for pleasure	3,312	30.0	8,017	72.5	186,931	16.9	23.3
Skiing	0	0.0	6,830	6.2	3,892	0.4	5.7
Ice skating	0	0.0	2,448	22.1	21,106	1.9	8.6

TABLE 3

RECREATION PARTICIPATION RATES, 19 ACTIVITIES, BY AGE, PENNSYLVANIA, 1974

Activity and rate	5-9	10-14	15-19	20-24	25-29	30-34	35-44	45-54	55-64	65-74	75-+
Swimming											
Percent participating	93.0	95.7	86.4	84.3	82.2	78.1	74.7	54.8	32.6	15.4	2.1
Activity days per participant	42.9	44.5	33.8	29.8	22.2	25.7	27.1	24.9	19.3	20.1	20.2
Activity days per capita	39.8	42.6	29.2	25.2	18.3	20.0	20.2	13.7	6.3	3.1	0.5
Peak days % participating	65.6	48.1	49.1	42.6	37.9	40.6	35.7	24.5	10.9	2.5	0.0
Picniking											
percent participating	88.6	80.5	75.3	86.8	82.9	79.8	76.7	64.8	52.9	38.3	27.7
Activity days per participant	10.3	8.8	6.8	8.5	10.6	8.3	10.1	7.9	7.6	6.4	6.6
Activity days per capita	9.1	7.1	5.1	7.4	8.8	6.6	7.7	5.1	4.0	2.5	1.8
Peak days % participating	39.0	26.7	29.2	36.3	42.2	35.4	31.5	24.1	20.1	10.8	5.9
Boating, canoeing, waterskiing											
Percent participating	31.0	45.1	43.1	52.0	40.0	33.3	28.7	24.7	15.1	9.7	2.8
Activity days per participant	9.5	7.4	5.4	7.4	6.0	7.8	10.1	10.6	10.1	21.1	12.6
Activity days per capita	3.0	3.4	2.3	3.9	2.4	2.6	2.9	2.6	1.5	2.0	0.3
Peak days % participating	6.3	11.3	7.8	14.2	11.3	9.2	7.5	5.0	3.8	1.7	0.8
Fishing											
Percent participating	38.4	62.1	45.4	35.5	29.8	34.8	31.8	24.6	18.5	9.9	4.7
Activity days per participant	9.2	14.7	11.5	14.3	22.4	14.4	15.3	15.4	16.2	24.6	10.0
Activity days per capita	3.5	9.1	5.2	5.1	6.7	5.0	4.9	3.8	3.0	2.4	0.5
Peak days % participating	11.7	10.7	9.6	8.9	11.0	8.6	8.2	4.2	4.0	2.2	0.8
Hunting, sport shooting											
Percent participating	1.8	16.3	23.4	23.3	17.9	24.7	14.6	10.8	9.0	6.0	2.8
Activity days per participant	6.9	12.5	17.6	16.1	17.0	12.5	16.2	18.9	11.8	29.0	1.6
Activity days per capita	0.1	2.0	4.1	3.7	3.0	3.1	2.4	2.0	1.1	1.7	0.1
Peak days % participating	0.7	1.8	2.2	1.8	2.4	0.6	0.0	0.8	0.6	0.3	0.8
Tennis											
Percent participating	17.0	41.0	50.8	49.8	35.4	23.2	19.3	14.4	3.9	1.7	0.0
Activity days per participant	8.6	20.0	18.9	29.3	17.7	21.4	22.0	20.8	34.3	5.6	0.0
Activity days per capita	1.5	8.2	9.6	14.6	6.3	5.0	4.2	3.0	1.3	0.1	0.0
Peak days % participating	3.2	11.6	18.5	12.7	10.5	8.6	6.7	4.2	1.6	0.3	0.0
Golf, miniature golf											
Percent participating	31.0	43.7	46.9	44.3	34.6	35.2	28.5	20.2	14.9	6.6	1.2
Activity days per participant	3.2	8.5	8.5	10.9	10.2	9.6	16.9	20.4	43.0	28.3	4.6
Activity days per capita	1.0	3.7	4.0	4.8	3.5	3.4	4.8	4.1	6.4	1.9	0.1
Peak days % participating	5.0	8.0	10.1	10.3	6.3	6.9	7.7	6.2	7.1	2.3	0.8
Basketball											
Percen participating	22.4	57.2	57.7	40.3	22.7	18.9	14.3	4.6	2.0	0.0	0.0
Activity days per participant	32.8	42.9	51.9	38.7	27.0	19.7	27.7	42.3	4.7	0.0	0.0
Activity days per capita	7.3	24.5	30.0	15.6	6.1	3.7	4.0	1.9	0.1	0.0	0.0
Peak days % participating	2.9	15.1	16.4	7.7	5.7	2.4	3.8	0.3	0.3	0.0	0.0
Baseball, softball											
Percent participating	50.5	78.4	62.0	46.8	39.4	35.2	23.9	12.1	3.4	1.5	0.0
Activity days per participant	30.0	35.2	30.5	16.2	13.3	11.7	18.0	10.9	7.8	3.2	0.0
Activity days per capita	15.1	27.6	18.9	7.6	5.3	4.1	4.3	1.3	0.3	0.0	0.0
Peak days % participating	18.7	26.4	19.0	11.1	11.3	10.9	7.0	3.6	1.9	0.0	0.0

TABLE 3 (continued)

Football											
Percent participating	19.9	46.4	45.7	27.2	19.1	13.1	6.6	3.1	0.3	0.0	0.0
Activity days per participant	17.9	27.7	22.8	19.0	11.0	7.3	12.0	22.1	4.0	0.0	0.0
Activity days per capita	3.6	12.9	10.4	5.2	2.1	1.0	0.8	0.7	0.0	0.0	0.0
Peak days % participating	3.1	7.2	7.8	1.9	3.3	3.4	0.3	0.2	0.2	0.0	0.0
Street Hockey											
Percent participating	7.0	22.4	11.6	4.8	2.7	0.4	0.5	0.5	0.0	0.0	0.0
Activity days per participant	10.4	30.7	21.6	23.5	20.3	33.4	8.4	3.0	0.0	0.0	0.0
Activity days per capita	0.7	6.9	2.5	1.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0
Peak days % participating	1.3	3.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bicycling											
Percent participating	81.4	93.0	77.9	63.1	54.4	48.3	47.7	28.4	10.7	4.3	0.0
Activity days per participant	10.7	110.5	67.6	34.7	42.5	36.7	23.7	35.5	31.1	52.5	0.0
Activity days per capita	90.1	102.9	52.6	21.9	23.1	17.7	11.3	10.1	3.3	2.3	0.0
Peak days % participating	51.5	56.2	38.3	21.3	17.0	22.5	15.1	8.2	3.4	1.5	0.0
Horseback riding											
Percent participating	20.3	24.6	21.4	19.8	13.8	10.1	6.1	4.6	1.1	0.9	0.0
Activity days per participant	26.8	14.2	15.3	16.2	12.5	18.1	29.8	11.7	8.3	9.7	0.0
Activity days per capita	5.5	3.5	3.3	3.2	1.7	1.8	1.8	0.5	0.1	0.1	0.0
Peak days % participating	4.1	2.2	6.3	3.3	1.8	3.0	1.5	0.5	0.1	0.3	0.0
Hiking, nature walks											
Percent participating	58.6	53.8	46.3	54.6	49.5	46.6	45.1	32.9	25.2	13.7	6.3
Activity days per participant	17.7	16.4	14.9	13.9	18.9	11.4	19.2	18.3	27.6	45.9	36.7
Activity days per capita	10.4	8.8	6.9	7.6	9.3	5.3	8.6	6.0	7.0	6.3	2.3
Peak days % participating	16.5	13.6	13.7	10.6	16.8	17.6	11.3	9.2	7.2	4.3	2.4
Camping											
Percent participating	33.8	46.5	41.1	37.3	27.6	29.2	28.3	18.7	8.5	4.9	0.8
Activity days per participant	8.7	10.8	11.9	8.2	11.5	8.9	12.0	10.9	18.7	10.3	5.5
Activity days per capits	3.0	5.0	4.9	3.1	3.2	2.6	3.4	2.0	1.6	0.5	0.0
Peak days % participating	8.4	5.0	6.0	5.8	5.9	9.4	7.1	4.8	2.1	0.5	0.0
Off-road motorcycling, snowmobiling											
Percent participating	10.3	18.5	26.4	28.3	16.2	12.9	9.8	5.0	2.1	0.5	0.0
Activity days per participant	17.0	23.5	44.8	20.7	19.7	26.8	13.4	13.8	21.1	25.1	0.0
Activity days per capita	1.7	4.3	11.8	5.9	3.2	3.5	1.3	0.7	0.4	0.1	0.0
Peak days % participating	0.0	4.3	6.1	3.3	1.6	1.5	0.8	0.5	0.3	0.5	0.0
Sightseeing, pleasure driving											
Percent participating	81.4	70.5	70.6	80.9	86.0	82.8	75.0	71.6	66.3	53.8	43.9
Activity days per participant	21.4	20.6	27.8	32.2	28.0	20.0	20.8	19.3	21.7	26.7	21.3
Activity days per capita	17.4	14.5	19.6	26.0	24.1	16.5	15.6	13.8	14.4	14.4	9.3
Peak days % participating	30.5	24.3	34.6	39.5	43.8	36.5	34.4	26.9	27.3	16.8	8.7
Skiing											
Percent participating	4.3	9.7	10.1	11.4	4.9	5.2	3.9	2.7	0.6	0.0	0.0
Activity days per participant	3.7	6.2	7.4	6.4	6.5	8.8	10.7	9.8	5.6	0.0	0.0
Activity days per capita	0.2	0.6	0.8	0.7	0.3	0.5	0.4	0.3	0.0	0.0	0.0
Peak days % participating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ice Skating											
Percent participating	27.2	50.2	44.4	37.4	18.6	20.8	16.7	9.4	2.2	0.3	0.0
Activity days per participant	8.1	11.1	8.7	9.7	8.4	4.6	6.2	9.5	3.9	14.9	0.0
Activity days per capita	2.2	5.6	3.9	3.6	1.6	1.0	1.0	0.9	0.1	0.0	0.0
Peak days % participating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 4

RECREATION PARTICIPATION RATES, 19 ACTIVITIES, BY SEX AND FAMILY INCOME, PENNSYLVANIA, 1974

	Male	Female	Less than $4,000	$4,000 -6,999	$7,000 -9,999	$10,000 -14,999	$15,000 -24,999	$25,000 and over
Swimming:								
Peak day percent	33.8	33.5	12.1	16.1	27.2	42.8	43.4	47.5
Annual percent	68.5	65.1	29.0	43.2	65.8	76.4	82.5	86.6
Days per participant	29.2	32.8	21.9	27.6	25.9	30.7	36.9	39.7
Days per capita	20.0	21.4	6.4	9.4	17.1	23.5	30.4	34.3
Picnicking:								
Peak day percent	24.6	31.3	18.0	22.3	28.1	34.0	28.1	27.1
Annual percent	69.4	71.5	44.2	55.7	73.9	79.4	75.5	69.2
Days per participant	7.9	9.4	6.2	7.6	8.7	9.5	8.8	7.1
Days per capita	5.5	6.7	2.8	4.2	6.4	7.5	6.7	5.1
Boating, canoeing, waterskiing:								
Peak day percent	8.0	6.7	2.7	2.8	4.6	9.6	9.3	14.2
Annual percent	34.5	27.3	15.2	14.7	26.9	35.8	40.4	46.7
Days per participant	9.0	7.7	4.8	12.3	7.3	7.8	9.8	11.3
Days per capita	3.1	2.1	0.7	1.8	2.0	2.8	3.9	5.3
Fishing:								
Peakday percent	11.1	4.2	4.2	5.3	7.0	8.1	8.8	8.6
Annual percent	43.8	21.5	14.0	17.4	31.8	37.7	36.7	39.9
Days per participant	17.7	9.3	20.0	21.8	14.4	14.7	12.9	10.1
Days per capita	7.7	2.0	2.8	3.8	4.6	5.6	4.8	4.0
Hunting, sport shooting:								
Peak day percent	2.1	0.1	0.0	0.6	0.6	0.8	1.6	3.1
Annual percent	26.6	3.0	5.3	10.0	16.1	16.6	14.4	12.6
Days per participant	16.7	9.8	21.5	19.0	16.1	17.3	9.8	14.6
Days per capita	4.4	0.3	1.1	1.9	2.6	2.9	1.4	1.9
Tennis:								
Peak day percent	7.9	7.0	1.3	5.3	4.3	8.7	9.2	23.0
Annual percent	26.3	21.9	9.3	9.3	17.1	26.4	37.5	49.8
Days per participant	20.8	21.9	17.9	15.7	12.6	20.3	21.9	31.1
Days per capita	5.5	4.8	1.7	1.5	2.2	5.4	8.2	15.5
Golf, miniature golf:								
Peak day percent	8.5	5.5	1.7	3.0	5.8	7.0	9.5	16.1
Annual percent	34.0	24.5	7.6	10.7	25.8	32.0	41.6	46.6
Days per participant	17.5	8.2	4.8	7.6	10.6	11.4	16.8	17.3
Days per capita	6.0	2.0	0.4	0.8	2.7	3.7	7.0	8.1
Basketball:								
Peak day percent	8.4	2.4	2.3	2.8	4.0	5.6	7.9	9.2
Annual percent	31.9	13.6	8.7	11.2	21.0	26.4	28.6	29.7
Days per participant	46.8	24.6	66.7	51.8	37.8	37.3	39.5	44.0
Days per capita	14.9	3.4	5.8	5.8	7.9	9.8	11.3	13.1
Baseball, softball:								
Peak day percent	14.5	6.1	4.7	5.3	11.6	11.5	10.7	13.1
Annual percent	42.3	23.6	12.1	13.9	33.1	37.2	40.8	47.1
Days per participant	28.4	17.8	21.6	43.2	26.6	21.3	22.7	23.0
Days per capita	12.0	4.2	2.6	6.0	8.8	7.9	9.2	10.8
Football:								
Peak day percent	4.6	0.5	1.1	0.7	2.3	3.7	2.7	1.9
Annual percent	27.9	6.4	7.0	6.5	15.9	19.5	21.5	24.7
Days per participant	23.3	10.9	16.3	23.9	22.4	19.1	20.9	21.0
Days per capita	6.5	0.7	1.1	1.6	3.6	3.8	4.5	5.2

TABLE 4 (continued)

	Male	Female	Less than $4,000	$4,000 -6,999	$7,000 -9,999	$10,000 -14,999	$15,000 -24,999	$25,000 and over
Street hockey:								
Peak day percent	0.9	0.2	0.0	0.8	0.8	0.2	1.1	0.0
Annual percent	8.1	1.5	0.8	1.7	3.5	5.8	7.8	7.3
Days per participant	26.8	12.1	19.5	12.2	25.2	22.0	28.2	16.2
Days per capita	2.2	0.2	0.1	0.2	0.9	1.3	2.2	1.2
Bicycling:								
Peak day percent	22.8	20.5	8.4	8.4	19.5	26.5	30.2	26.6
Annual percent	50.0	46.1	19.7	21.5	46.0	56.0	63.1	65.3
Days per participant	71.9	55.9	67.2	58.6	57.8	64.9	65.5	64.8
Days per capita	35.9	25.8	13.3	12.6	26.6	36.4	41.4	42.3
Horseback riding:								
Peak day percent	1.2	2.8	2.1	0.7	2.5	2.9	1.2	1.3
Annual percent	10.2	11.9	6.3	4.7	10.6	12.8	13.3	15.9
Days per participant	11.6	22.1	7.8	7.7	19.9	21.5	6.6	33.8
Days per capita	1.2	2.6	0.5	0.4	2.1	2.8	0.9	5.4
Hiking, nature walks:								
Peak day percent	10.5	12.1	4.6	8.9	10.2	14.8	12.4	11.7
Annual percent	40.2	41.4	19.7	28.9	43.9	47.1	45.2	44.8
Days per participant	17.3	19.0	18.6	26.4	18.7	19.1	13.8	16.9
Days per capita	7.0	7.9	3.7	7.6	8.2	9.0	6.2	7.6
Camping:								
Peak day percent	6.0	4.5	1.7	2.3	4.2	6.8	7.4	6.9
Annual percent	29.0	24.0	9.3	13.6	29.2	28.6	34.1	30.1
Days per participant	11.0	10.7	7.9	8.6	10.4	12.3	11.7	9.0
Days per capita	3.2	2.6	0.7	1.2	3.0	3.5	4.0	2.7
Off-road motorcycling, snowmobiling:								
Peak day percent	3.1	0.6	0.0	0.4	2.0	2.8	1.8	1.3
Annual percent	15.3	9.0	3.6	4.8	13.1	13.8	15.6	16.3
Days per participant	32.0	15.0	8.4	47.5	29.3	26.8	21.1	11.1
Days per capita	4.9	1.4	0.3	2.3	3.8	3.7	3.3	1.8
Sightseeing, pleasure driving:								
Peak day percent	28.2	32.2	14.0	24.7	31.1	33.3	35.0	29.7
Annual percent	71.2	73.5	47.4	64.0	72.4	76.4	80.6	81.0
Days per participant	22.8	23.7	24.9	23.2	23.9	23.6	24.8	18.2
Days per capita	16.3	17.4	11.8	14.9	17.3	18.1	19.9	14.8
Skiing:								
Peak day percent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Peak day percent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Annual percent	5.1	4.8	0.9	1.3	3.6	4.6	7.6	16.5
Days per participant	7.9	6.7	23.0	5.2	7.1	6.9	6.5	8.6
Days per capita	0.4	0.3	0.2	0.1	0.3	0.3	0.5	1.4
Ice skating:								
Peak day percent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Annual percent	21.6	20.8	7.4	4.8	19.9	24.3	32.5	32.4
Days per participant	9.0	8.6	8.2	8.1	8.1	8.6	10.5	6.6
Days per capita	1.9	1.8	0.6	0.4	1.6	2.1	3.4	2.1

TABLE 5

AGE, SEX, AND INCOME RECREATION PARTICIPATION WEIGHTS, PENNSYLVANIA, 1974

Measure and activity	Age	Sex	Income	Sum squared deviations ÷ total sum of squares
Summer peak day participants:				
Swimming	.0000	.0000	1.0000	.3179
Picnicking	.2358	.0000	.7642	.4255
Boating, canoeing, waterskiing	.0000	.8125	.1875	.8308
Fishing	.0000	.0000	1.0000	.7967
Hunting or sport shooting	.0000	.0625	.9375	.9286
Tennis	.0000	.0000	1.0000	.7069
Golf or miniature golf	.0000	.0000	1.0000	.7171
Basketball	.4611	.0000	.5389	.7731
Baseball or softball	1.0000	.0000	.0000	.6166
Football	.0000	.0000	1.0000	.9179
Street hockey	1.0000	.0000	.0000	.9044
Bicycling	.6015	.0000	.3985	.4132
Horseback riding	.5652	.0000	.4348	.9293
Hiking or nature walks	.2547	.4228	.3225	.8824
Camping	.7987	.1883	.0130	.8927
Off-road motorcycling or snowmobiling	.1364	.8636	.0000	1.0382
Sightseeing or driving for pleasure	1.0000	.0000	.0000	.5527
Any-time during year participants:				
Swimming	.2844	.0000	.7156	.1269
Picnicking	.7448	.2552	.0000	.1510
Boating, canoeing, waterskiing	.0926	.0000	.9074	.3574
Fishing	.3614	.5187	.1199	.4416
Hunting or sport shooting	.0000	1.0000	.0000	.7614
Tennis	.0000	.0000	1.0000	.6642
Golf or miniature golf	.0000	.0000	1.0000	.5108
Basketball	.8898	.0000	.1102	.4045
Baseball or softball	.9568	.0432	.0000	.2936
Football	.6740	.0000	.3260	.6077
Street hockey	.8030	.0000	.1970	.7811
Bicycling	.6306	.0000	.3694	.2700
Horseback riding	1.0000	.0000	.0000	.6894
Hiking or nature walks	.7666	.0000	.2334	.4926
Camping	.7360	.0000	.2640	.5900
Off-road motorcycling or snowmobiling	.6040	.0965	.2994	.8237
Sightseeing or driving for pleasure	.7143	.0000	.2857	.1215
Snow skiing	.2959	.0000	.7041	.7901
Ice skating	.6914	.0000	.3086	.5627
Total activity days:				
Swimming	.1712	.0000	.8288	.4042
Picnicking	.8134	.0000	.1866	.6081
Boating, canoeing, waterskiing	.3184	.0000	.6816	.8178
Fishing	.0000	1.0000	.0000	.7350
Hunting or sport shooting	.0000	.4688	.5312	.8886
Tennis	.3248	.0000	.6753	.6127
Golf or miniature golf	.0000	.5807	.4193	.8630
Basketball	1.0000	.0000	.0000	.6072
Baseball or softball	1.0000	.0000	.0000	.5683
Football	.7287	.1508	.1205	.1868
Street hockey	1.0000	.0000	.0000	.8534
Bicycling	1.0000	.0000	.0000	.3248
Horseback riding	.6495	.0000	.3505	.9277
Hiking or nature walks	.0000	.0000	1.0000	.7441
Camping	.3857	.0000	.6143	.6731
Off-road motorcycling or snowmobling	1.0000	.0000	.0000	.9154
Sightseeing or driving for pleasure	1.0000	.0000	.0000	.4101
Snow skiing	1.0000	.0000	.0000	.8987
Ice skating	.8752	.0000	.1248	.7468

TABLE 6

ESTIMATED CURRENT RECREATION PARTICIPATION AND DEMOGRAPHIC-BASED EXPECTED PARTICIPATION OF PERSONS 5 AND OVER, BY UNIFORM PLANNING REGION, PENNSYLVANIA, 1974

Activity	Actual Expected	All Penna.	Commonwealth Uniform Planning Region 1	2	3	4	5	6	7	8	9	10
Swimming:												
Percent participating	A	69.1	75.2	68.3	66.2	58.6	56.1	69.1	55.1	63.4	73.4	66.9
	E	69.1	70.4	70.3	65.8	66.9	66.3	70.2	67.0	66.4	68.5	69.1
Days per capita	A	23.2	27.4	25.7	21.0	27.9	14.6	23.2	13.1	25.0	18.8	21.7
	E	23.2	24.1	24.0	21.4	21.7	21.3	23.6	21.9	21.5	22.6	23.2
Picnicking:												
Percent participating	A	70.0	65.7	67.6	67.3	73.2	74.2	71.7	69.7	75.2	75.5	73.7
	E	70.0	70.5	69.7	68.1	70.3	70.4	70.6	69.3	69.2	70.2	69.7
Days per capita	A	6.0	5.0	6.9	7.1	7.7	6.4	5.8	6.6	6.6	8.3	6.0
	E	6.0	6.1	6.0	5.8	6.1	6.0	6.1	5.9	5.9	6.1	6.0
Boating, canoeing or waterskiing:												
Percent participating	A	33.9	34.8	34.4	28.9	38.3	33.7	34.6	25.7	31.5	43.6	32.5
	E	33.9	34.8	34.8	31.9	31.8	31.5	34.3	32.3	31.8	33.1	33.9
Days per capita	A	3.0	3.0	2.1	2.7	5.8	2.7	3.7	1.1	3.9	4.4	2.7
	E	3.0	3.1	3.1	2.7	2.8	2.7	3.0	2.8	2.7	2.9	3.0
Fishing												
Percent participating	A	32.0	26.9	32.1	31.6	37.1	32.2	34.6	33.1	34.4	48.2	33.3
	E	32.0	32.2	32.0	31.2	32.3	32.1	32.3	31.8	31.8	32.2	32.0
Days per capita	A	4.7	3.0	3.4	4.4	11.7	7.5	6.8	5.5	5.9	10.0	4.2
	E	4.7	4.7	4.8	4.7	4.8	4.8	4.8	4.8	4.8	4.8	4.7
Hunting, sport shooting:												
Percent participating	A	14.2	5.7	12.7	14.0	21.1	29.2	17.5	21.6	24.7	31.5	15.2
	E	14.2	14.2	14.3	14.2	14.5	14.3	14.3	14.3	14.3	14.4	14.2
Days per capita	A	2.1	0.5	1.2	1.4	6.0	4.3	2.1	6.7	3.3	5.9	2.3
	E	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.1
Tennis:												
Percent participating	A	29.4	35.1	35.3	24.2	32.8	22.6	25.4	15.0	23.7	26.3	28.5
	E	29.4	31.1	30.9	26.5	26.3	25.8	29.9	27.0	26.1	28.1	29.5
Days per capita	A	6.2	8.2	8.2	5.4	5.3	5.7	5.3	3.4	2.5	4.0	5.2
	E	6.2	6.7	6.5	5.4	5.5	5.5	6.3	5.7	5.4	5.9	6.2
Golf, miniature golf:												
Percent participating	A	32.4	33.5	41.9	31.0	28.2	18.6	28.4	12.7	25.0	39.3	35.7
	E	32.4	33.6	33.8	30.0	29.7	29.1	33.0	30.4	29.7	31.3	32.4
Days per capita	A	4.2	3.5	4.9	3.3	6.1	1.4	5.8	1.6	4.0	7.3	4.8
	E	4.2	4.4	4.4	4.0	4.0	4.0	4.3	4.0	4.0	4.1	4.2
Basketball:												
Percent participating	A	22.4	22.5	23.0	22.2	22.0	20.3	24.4	23.0	11.9	23.5	22.3
	E	22.4	22.9	21.9	20.2	22.9	23.1	22.9	22.0	22.1	22.9	22.3
Days per capita	A	8.8	10.4	7.6	8.6	5.1	9.1	8.3	3.7	6.0	6.8	9.1
	E	8.8	9.0	8.5	7.9	9.1	9.2	9.0	8.8	8.8	9.1	8.8
Baseball, softball:												
Percent participating	A	32.4	30.2	31.7	31.8	38.4	30.1	35.5	29.3	26.9	37.4	34.1
	E	32.4	33.0	31.6	29.3	33.6	33.3	33.2	31.8	32.0	33.1	32.0
Days per capita	A	7.9	7.8	8.6	7.9	3.3	6.2	8.1	13.2	4.1	8.5	7.7
	E	7.9	8.1	7.7	8.4	8.1	8.1	7.8	7.8	8.0	8.2	7.8
Football:												
Percent participating:	A	17.2	17.7	20.8	11.4	23.8	9.6	21.1	15.8	13.4	18.3	17.0
	E	17.2	17.6	17.0	15.6	17.3	17.2	17.6	16.8	16.8	17.4	17.9
Days per capita	A	3.5	4.1	4.9	2.3	5.4	2.7	4.3	4.0	2.3	2.3	2.8
	E	3.5	3.6	3.4	3.2	3.6	3.6	3.6	3.5	3.5	3.6	3.5
Street Hockey:												
Percent participating	A	4.9	8.9	3.0	0.4	5.4	0.7	2.9	3.2	0.9	0.9	4.7
	E	4.9	5.0	4.8	4.4	5.1	4.9	5.0	4.8	4.9	5.0	4.9
Days per capita	A	1.1	2.3	0.5	0.1	0.7	0.1	0.7	0.2	0.0	0.2	0.9
	E	1.1	1.2	1.1	1.0	1.2	1.2	1.2	1.1	1.2	1.2	1.1

TABLE 6 (continued)

Activity	Actual Expected	All Penna.	1	2	3	4	5	6	7	8	9	10
Bicycling:												
Percent participating	A	49.2	51.1	45.9	42.5	53.1	51.9	56.5	39.4	55.3	56.1	44.9
	E	49.2	50.2	49.2	45.6	49.0	48.4	50.2	47.7	47.7	49.3	48.9
Days per capita	A	31.1	32.3	27.6	30.4	23.0	19.4	37.3	32.4	40.1	38.7	27.6
	E	31.1	31.7	30.2	27.9	33.5	31.5	32.0	30.8	31.7	32.2	30.6
Horseback riding:												
Percent participating	A	11.2	8.4	13.0	8.2	23.1	9.4	11.2	12.7	18.8	17.1	12.9
	E	11.2	11.5	10.9	10.1	11.6	11.6	11.5	11 0	11.1	11.5	11.1
Days per capita	A	2.0	0.7	3.6	0.6	3.4	0.5	1.4	1.1	1.3	2.6	4.5
	E	2.0	2.1	2.0	1.8	2.0	2.0	2.1	2.0	2.0	2.0	2.0
Hiking, nature walks:												
Percent participating	A	40.6	37.3	41.8	35.7	48.7	46.4	42.8	44.0	45.1	52.1	39.8
	E	40.6	41.0	40.5	38.7	40.8	40.6	41.2	39.9	39.8	40.8	40.3
Days per capita	A	7.2	5.9	10.7	9.0	20.5	5.9	5.9	11.3	8.6	9.2	6.2
	E	7.2	7.1	7.2	7.3	7.3	7.2	7.2	7.3	7.3	7.3	7.2
Camping:												
Percent participating	A	26.3	20.2	29.3	23.6	40.6	35.9	33.4	28.3	31.4	39.1	24.9
	E	26.3	26.7	26.2	24.6	26.4	26.3	26.8	25.7	25.7	26.5	26.2
Days per capita	A	2.9	2.1	2.3	1.8	6.8	4.1	3.9	3.1	3.4	5.0	3.2
	E	2.9	3.0	3.0	2.8	2.9	2.8	3.0	2.9	2.8	2.9	2.9
Off-road motorcycling; snowmobiling:	A	12.2	6.4	17.1	14.4	36.1	18.8	14.0	9.5	27.9	25.3	10.8
	E	12.2	12.5	12.2	11.4	12.1	12.3	12.5	12.0	11.8	12.3	12.2
Days per capita	A	4.0	1.4	3.5	3.2	17.1	4.1	2.7	3.0	4.7	5.3	3.6
	E	3.0	3.1	2.9	2.7	3.1	3.2	3.1	3.0	3.0	3.1	3.0
Sightseeing; pleasure driving:												
Percent participating	A	72.5	72.1	75.8	72.9	70.1	68.1	73.8	69.7	81.1	77.1	71.1
	E	72.5	73.0	72.8	71.2	72.1	72.1	73.0	71.8	71.6	72.4	72.4
Days per capita	A	16.9	17.2	17.7	19.2	14.5	16.7	16.1	19.2	26.0	17.6	14.8
	E	16.9	17.0	16.8	16.5	16.8	17.2	17.0	16.8	16.7	16.9	16.9
Skiing:												
Percent participating	A	6.2	8.6	9.4	4.8	18.1	3.8	4.7	6.0	3.4	3.5	3.9
	E	6.2	6.6	6.4	5.3	5.5	5.4	6.3	5.6	5.3	5.8	6.1
Days per capita	A	0.4	0.2	0.5	0.3	2.1	0.2	0.4	0.4	0.1	0.2	0.5
	E	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.4
Ice skating:												
Percent participating	A	22.1	22.4	27.8	22.7	28.2	20.6	23.9	13.6	10.2	20.4	22.1
	E	22.1	22.7	22.1	20.1	22.0	21.9	22.6	21.4	21.4	22.3	22.0
Days per capita	A	1.9	1.5	2.0	1.6	3.9	1.1	1.6	1.3	0.5	1.7	3.0
	E	1.9	1.9	1.9	1.7	1.9	1.9	2.0	1.9	1.9	1.9	1.9

TABLE 7.--DEMOGRAPHIC-BASED PROJECTED RECREATION PARTICIPATION, 19 ACTIVITIES, PENNSYLVANIA, BY REGION, TO 1990 PAGE-- 1

ACTIVITY YEAR MEASURE	ALL PENNA	REGION ONE	REGION TWO	REGION THREE	REGION FOUR	REGION FIVE	REGION SIX	REGION SEVEN	REGION EIGHT	REGION NINE	REGION TEN
SWIMMING											
1974 PARTICIPANTS ANNUALLY	7641252	2554636	509760	545254	96670	337564	838821	305497	143154	464259	1845637
1974 PEAK DAY PARTICIPANTS	4065969	1366625	275541	288558	49844	173342	446350	160389	74664	244673	985983
1974 ACTIVITY DAYS (000'S)	25679C	87341	17406	17758	3132	10836	28255	10007	4641	15345	62069
1980 PARTICIPANTS ANNUALLY	7946316	2657228	540749	574758	100539	361975	891446	311952	148198	483323	1876148
1980 PEAK DAY PARTICIPANTS	4343344	1454022	298876	315417	53922	192999	486084	169916	80393	262476	1029239
1980 ACTIVITY DAYS (000'S)	277192	93674	19170	19616	3417	12223	31106	10697	5048	16707	65533
1985 PARTICIPANTS ANNUALLY	8416795	2802940	575292	613779	107124	381414	944835	332591	155575	510938	1992307
1985 PEAK DAY PARTICIPANTS	4672314	1553889	322515	344173	58823	208462	523639	184575	86186	282275	1107777
1985 ACTIVITY DAYS (000'S)	301591	100990	20932	21729	3775	13382	33897	11785	5480	18181	71440
1990 PARTICIPANTS ANNUALLY	8966203	2993562	615528	647567	114635	412866	1020538	351483	166522	545773	2097729
1990 PEAK DAY PARTICIPANTS	5002596	1667525	346593	366191	63603	227167	569064	196445	92823	303037	1170148
1990 ACTIVITY DAYS (000'S)	326132	109212	22700	23394	4124	14770	37144	12709	5996	19776	76306
PICNICKING											
1974 PARTICIPANTS ANNUALLY	7735480	2557988	505368	564145	101561	358198	843503	316258	149238	475960	1863261
1974 PEAK DAY PARTICIPANTS	3083158	1011945	203034	228567	40171	141287	336519	126544	59797	189936	745358
1974 ACTIVITY DAYS (000'S)	66599	22076	4361	4802	877	3080	7320	2706	1278	4104	15995
1980 PARTICIPANTS ANNUALLY	7789442	2590663	521045	568986	100956	366991	870552	309158	147531	477407	1836153
1980 PEAK DAY PARTICIPANTS	3110377	1025548	208435	232670	40283	145608	347177	124814	59585	190643	735614
1980 ACTIVITY DAYS (000'S)	67043	22305	4483	4849	874	3156	7544	2655	1264	4124	15789
1985 PARTICIPANTS ANNUALLY	8093231	2690383	544554	590889	104631	375559	905555	321666	151146	494057	1914791
1985 PEAK DAY PARTICIPANTS	3221707	1062578	216873	241137	41712	148880	359660	129453	60955	196742	763717
1985 ACTIVITY DAYS (000'S)	69881	23315	4693	5028	903	3239	7854	2762	1299	4275	16515
1990 PARTICIPANTS ANNUALLY	8497692	2837460	575213	611262	109696	399164	964998	333557	158837	519320	1988185
1990 PEAK DAY PARTICIPANTS	3370760	1118472	228340	248708	43645	157541	382439	133527	63580	205545	788963
1990 ACTIVITY DAYS (000'S)	73455	24637	4951	5204	943	3456	8357	2870	1370	4498	17169
BOATING, CANOEING, WATERSKIING											
1974 PARTICIPANTS ANNUALLY	3741950	1263243	252439	263804	45979	160541	409957	147311	68484	224572	905620
1974 PEAK DAY PARTICIPANTS	832756	275777	55085	61285	10691	37587	90352	33898	15936	50747	201398
1974 ACTIVITY DAYS (000'S)	32833	11212	2221	2274	398	1387	3597	1279	590	1950	7926
1980 PARTICIPANTS ANNUALLY	4012523	1351133	275990	287952	49599	178427	448446	155947	73714	241804	949511
1980 PEAK DAY PARTICIPANTS	860463	285892	58192	63875	10974	39650	95454	34212	16268	52273	203673
1980 ACTIVITY DAYS (000'S)	35889	12221	2488	2519	438	1568	4011	1375	646	2146	8478
1985 PARTICIPANTS ANNUALLY	4341628	1450328	299970	316422	54414	193663	486304	170576	79527	261712	1028712
1985 PEAK DAY PARTICIPANTS	912297	301735	62119	68228	11709	41725	101474	36450	17081	55318	216458
1985 ACTIVITY DAYS (000'S)	39616	13336	2761	2834	492	1748	4444	1538	714	2375	9375
1990 PARTICIPANTS ANNUALLY	4659106	1557692	323225	337797	59061	211787	529568	182219	86040	282147	1089570
1990 PEAK DAY PARTICIPANTS	966196	320736	66243	71472	12465	44780	109312	38189	18102	58680	226217
1990 ACTIVITY DAYS (000'S)	42857	14413	2996	3055	539	1932	4874	1662	783	2589	10013

ACTIVITY YEAR MEASURE	ALL PENNA	REGION ONE	REGION TWO	REGION THREE	REGION FOUR	REGION FIVE	REGION SIX	REGION SEVEN	REGION EIGHT	REGION NINE	REGION TEN
FISHING											
1974 PARTICIPANTS ANNUALLY	3541333	1168624	232169	258421	46597	163278	386213	145106	68619	218249	854057
1974 PEAK DAY PARTICIPANTS	846003	281553	56639	61460	10652	37191	92408	34028	15937	51266	204869
1974 ACTIVITY DAYS (000'S)	52322	17106	3442	3904	694	2444	5678	2169	1026	3230	12629
1980 PARTICIPANTS ANNUALLY	3556148	1178455	238789	261659	46383	167912	397451	141755	67875	218534	837335
1980 PEAK DAY PARTICIPANTS	881833	292605	59991	65297	11159	40103	98344	35020	16635	53624	209055
1980 ACTIVITY DAYS (000'S)	52744	17266	3544	3991	695	2525	5848	2138	1023	3253	12461
1985 PARTICIPANTS ANNUALLY	3694411	1219516	249855	273214	48283	172223	413211	147765	69357	226327	874660
1985 PEAK DAY PARTICIPANTS	928948	307190	63456	69392	11865	42096	103737	37081	17371	56340	220420
1985 ACTIVITY DAYS (000'S)	54845	17897	3711	4180	727	2599	6084	2228	1051	3372	12996
1990 PARTICIPANTS ANNUALLY	3911178	1296419	266215	285185	51075	184470	444081	154542	73398	239619	916174
1990 PEAK DAY PARTICIPANTS	988449	327821	67883	73110	12698	45468	112196	39112	18526	60084	231551
1990 ACTIVITY DAYS (000'S)	57803	18936	3945	4354	767	2778	6531	2317	1104	3556	13514
HUNTING, SPORT-SHOOTING											
1974 PARTICIPANTS ANNUALLY	1573502	513611	103661	117226	20972	73878	170965	65316	30917	97391	379565
1974 PEAK DAY PARTICIPANTS	141321	50520	9831	9061	1567	5371	15505	5164	2307	7985	34010
1974 ACTIVITY DAYS (000'S)	23358	7534	1526	1785	314	1106	2539	983	468	1457	5645
1980 PARTICIPANTS ANNUALLY	1584124	517257	106593	119956	20999	76402	175775	64369	30821	98063	373889
1980 PEAK DAY PARTICIPANTS	171554	60742	12327	11178	1939	6864	19118	6204	2847	9885	40450
1980 ACTIVITY DAYS (000'S)	23081	7525	1540	1774	307	1108	2564	943	452	1423	5447
1985 PARTICIPANTS ANNUALLY	1647461	535897	111653	125848	21995	78766	182743	67119	31683	101693	390064
1985 PEAK DAY PARTICIPANTS	206778	71091	14886	14154	2443	8652	23216	7763	3547	12119	48907
1985 ACTIVITY DAYS (000'S)	23906	7781	1607	1840	318	1132	2654	977	461	1470	5665
1990 PARTICIPANTS ANNUALLY	1737893	567346	118821	131325	23243	84353	196382	69864	33346	107348	405865
1990 PEAK DAY PARTICIPANTS	229546	78340	16532	15883	2799	9965	26066	8706	4064	13688	53503
1990 ACTIVITY DAYS (000'S)	24894	8164	1688	1887	331	1191	2814	999	477	1526	5817
TENNIS											
1974 PARTICIPANTS ANNUALLY	3254558	1127952	223867	219152	37934	131284	357240	123302	56348	190252	787227
1974 PEAK DAY PARTICIPANTS	1072861	379257	73722	70583	12172	42050	117264	39903	17991	61472	258447
1974 ACTIVITY DAYS (000'S)	69065	24245	4705	4486	797	2818	7576	2586	1170	4024	16659
1980 PARTICIPANTS ANNUALLY	3692764	1267623	259403	255080	43857	156762	412618	139376	65093	218859	874093
1980 PEAK DAY PARTICIPANTS	1286391	456662	91990	84157	14597	51689	143028	46467	21360	73821	302620
1980 ACTIVITY DAYS (000'S)	79690	27951	5604	5223	921	3364	8899	2925	1368	4683	18753
1985 PARTICIPANTS ANNUALLY	4169532	1409135	293731	296440	50865	180563	467824	160649	74246	248427	987652
1985 PEAK DAY PARTICIPANTS	1569436	539868	112694	107605	18550	65807	175989	58938	26942	91916	371127
1985 ACTIVITY DAYS (000'S)	91852	31474	6500	6282	1098	3972	10315	3472	1603	5452	21684
1990 PARTICIPANTS ANNUALLY	4553452	1534429	321409	324413	56669	202483	517724	175920	82606	274016	1063783
1990 PEAK DAY PARTICIPANTS	1726453	591305	124154	119374	21044	74780	195770	65223	30443	102481	401879
1990 ACTIVITY DAYS (000'S)	100316	34140	7117	6930	1235	4467	11402	3823	1793	6028	23381

TABLE 7.--DEMOGRAPHIC-BASED PROJECTED RECREATION PARTICIPATION, 19 ACTIVITIES, PENNSYLVANIA, BY REGION, TO 1990 PAGE-- 3

ACTIVITY YEAR MEASURE	ALL PENNA	REGION ONE	REGION TWO	REGION THREE	REGION FOUR	REGION FIVE	REGION SIX	REGION SEVEN	REGION EIGHT	REGION NINE	REGION TEN
GOLF, MINIATURE GOLF											
1974 PARTICIPANTS ANNUALLY	3581578	1221088	244937	248174	42853	148345	393979	138626	63998	212354	867224
1974 PEAK DAY PARTICIPANTS	913902	318796	62763	61279	10584	36579	100213	34477	15697	52989	220525
1974 ACTIVITY DAYS (000'S)	46827	15833	3168	3297	578	2012	5122	1845	856	2801	11316
1980 PARTICIPANTS ANNUALLY	3930437	1328781	273219	279660	47845	170896	440199	151613	71306	235640	931278
1980 PEAK DAY PARTICIPANTS	1057664	367957	74798	71662	12348	43931	117986	39282	18228	61825	249647
1980 ACTIVITY DAYS (000'S)	50442	16932	3480	3633	627	2258	5625	1969	930	3048	11941
1985 PARTICIPANTS ANNUALLY	4300669	1440129	299764	312074	53380	189029	482675	168139	78118	258187	1019174
1985 PEAK DAY PARTICIPANTS	1231733	419449	87466	86325	14829	52580	138190	46984	21600	72800	291510
1985 ACTIVITY DAYS (000'S)	54620	18178	3785	4004	691	2457	6104	2154	1005	3300	12942
1990 PARTICIPANTS ANNUALLY	4657747	1558490	325553	337105	58652	209418	530133	181854	85669	281627	1089246
1990 PEAK DAY PARTICIPANTS	1350239	458070	96067	95038	16660	59362	153359	51709	24212	80790	314972
1990 ACTIVITY DAYS (000'S)	58920	19597	4101	4302	753	2707	6688	2316	1094	3584	13777
BASKETBALL											
1974 PARTICIPANTS ANNUALLY	2480071	830420	158673	167156	33102	117507	274137	100560	47617	155431	595468
1974 PEAK DAY PARTICIPANTS	629816	213825	41758	42683	7909	27752	69298	24835	11585	38231	151940
1974 ACTIVITY DAYS (000'S)	97761	32618	6171	6510	1317	4709	10766	4009	1904	6195	23562
1980 PARTICIPANTS ANNUALLY	2415459	819120	159748	161881	31299	118210	274315	93410	46029	151194	560253
1980 PEAK DAY PARTICIPANTS	656506	223105	44713	45123	8189	30084	73931	25240	12150	40095	153876
1980 ACTIVITY DAYS (000'S)	91912	31219	6036	6046	1200	4617	10461	3547	1784	5816	21186
1985 PARTICIPANTS ANNUALLY	2430757	814176	162750	166378	31496	116494	274888	95213	45078	151758	572526
1985 PEAK DAY PARTICIPANTS	693306	232603	47674	48914	8757	31578	78058	27033	12654	42291	163744
1985 ACTIVITY DAYS (000'S)	89309	29796	5968	6064	1180	4384	10142	3506	1671	5638	20960
1990 PARTICIPANTS ANNUALLY	2586298	861619	174732	176326	33768	125582	295437	100812	47823	161246	608953
1990 PEAK DAY PARTICIPANTS	749822	250258	51852	52860	9601	34855	85453	29222	13743	45916	176062
1990 ACTIVITY DAYS (000'S)	95252	31413	6449	6462	1279	4722	10942	3723	1752	5997	22513
BASEBALL, SOFTBALL											
1974 PARTICIPANTS ANNUALLY	3579339	1199159	229126	242291	48542	169428	397282	144918	69021	224423	855149
1974 PEAK DAY PARTICIPANTS	1116078	374136	71414	75285	15302	52483	124147	45197	21652	70160	266302
1974 ACTIVITY DAYS (000'S)	87584	29293	5557	5842	1220	4129	9740	3578	1729	5559	20937
1980 PARTICIPANTS ANNUALLY	3481764	1176568	230644	234816	45900	169897	396953	134942	65735	218002	808307
1980 PEAK DAY PARTICIPANTS	1075092	362615	71440	72484	14378	52397	123118	41650	20242	67502	249266
1980 ACTIVITY DAYS (000'S)	81532	27432	5412	5463	1114	4027	9381	3166	1566	5178	18792
1985 PARTICIPANTS ANNUALLY	3570922	1196318	238720	243212	46570	170019	404644	139719	65807	222719	843194
1985 PEAK DAY PARTICIPANTS	1109572	370707	74378	75383	14631	52623	126235	43416	20335	69347	262517
1985 ACTIVITY DAYS (000'S)	82961	27459	5591	5658	1127	3985	9491	3258	1521	5233	19639
1990 PARTICIPANTS ANNUALLY	3809620	1277647	256324	256617	49395	183571	434884	147569	70430	237022	896161
1990 PEAK DAY PARTICIPANTS	1192052	399878	80366	79724	15512	57100	136404	46018	21933	74181	280936
1990 ACTIVITY DAYS (000'S)	90990	30203	6169	6101	1216	4387	10460	3528	1664	5695	21569

ACTIVITY YEAR MEASURE	ALL PENNA	REGION ONE	REGION TWO	REGION THREE	REGION FOUR	REGION FIVE	REGION SIX	REGION SEVEN	REGION EIGHT	REGION NINE	REGION TEN
FOOTBALL											
1974 PARTICIPANTS ANNUALLY	1902619	638987	123379	129276	24938	87735	209999	76518	36137	118058	457592
1974 PEAK DAY PARTICIPANTS	270767	87601	18052	20303	3505	12288	29749	11137	5298	16890	65944
1974 ACTIVITY DAYS (000'S)	38734	12905	2481	2641	521	1821	4262	1585	755	2434	9329
1980 PARTICIPANTS ANNUALLY	1897494	641687	126979	129514	24300	90570	214667	73524	35805	117730	442718
1980 PEAK DAY PARTICIPANTS	267393	86201	17858	20747	3521	12668	30022	10969	5282	16630	63495
1980 ACTIVITY DAYS (000'S)	37005	12440	2460	2535	487	1812	4195	1448	716	2326	8586
1985 PARTICIPANTS ANNUALLY	1952133	652130	132064	136162	25072	91557	220102	76675	36134	120832	461405
1985 PEAK DAY PARTICIPANTS	266528	86288	17775	20743	3519	12476	29840	10942	5189	16477	63279
1985 ACTIVITY DAYS (000'S)	37045	12236	2505	2607	493	1781	4192	1467	691	2321	8753
1990 PARTICIPANTS ANNUALLY	2086008	694891	142314	144879	27050	99313	237950	81377	38576	129015	490643
1990 PEAK DAY PARTICIPANTS	276195	90326	18499	21157	3635	12999	31470	11144	5316	16925	64724
1990 ACTIVITY DAYS (000'S)	40040	13182	2733	2796	537	1941	4585	1573	742	2497	9454
STREET HOCKEY											
1974 PARTICIPANTS ANNUALLY	541457	181711	34814	36160	7332	24864	59984	21939	10524	34030	130099
1974 PEAK DAY PARTICIPANTS	60854	20294	3830	4023	882	2824	6779	2516	1243	3918	14545
1974 ACTIVITY DAYS (000'S)	12651	4230	795	834	178	598	1404	520	253	808	3031
1980 PARTICIPANTS ANNUALLY	512313	172049	34261	34852	6850	24751	58550	20013	9893	32379	118715
1980 PEAK DAY PARTICIPANTS	53124	17659	3547	3601	771	2649	6187	2089	1048	3439	12134
1980 ACTIVITY DAYS (000'S)	11259	3797	739	751	156	562	1297	442	224	724	2567
1985 PARTICIPANTS ANNUALLY	517653	170274	35285	36165	6961	24567	58979	20423	9520	32526	122953
1985 PEAK DAY PARTICIPANTS	53679	17294	3674	3730	777	2591	6219	2135	976	3446	12837
1985 ACTIVITY DAYS (000'S)	10911	3550	741	753	152	533	1253	431	200	700	2598
1990 PARTICIPANTS ANNUALLY	573053	188831	39269	39541	7687	27353	65843	22421	10530	35693	135885
1990 PEAK DAY PARTICIPANTS	61782	20182	4243	4159	861	2947	7160	2406	1118	3884	14822
1990 ACTIVITY DAYS (000'S)	12496	4081	851	849	173	608	1438	492	229	786	2991
BICYCLING											
1974 PARTICIPANTS ANNUALLY	5433201	1820746	356749	377570	70781	246406	600058	217807	102781	334427	1305876
1974 PEAK DAY PARTICIPANTS	2479217	829834	162650	171512	32733	111832	274568	99625	47382	153496	595585
1974 ACTIVITY DAYS (000'S)	343656	114922	21885	23135	4840	16033	38299	14031	6822	21810	81879
1980 PARTICIPANTS ANNUALLY	5494157	1846214	370645	384938	70866	256852	621829	213978	102562	338201	1288072
1980 PEAK DAY PARTICIPANTS	2472776	825630	167020	174311	32448	116290	280888	96796	46494	153358	579541
1980 ACTIVITY DAYS (000'S)	320926	106974	21451	21903	4448	15679	36934	12551	6102	20387	74497
1985 PARTICIPANTS ANNUALLY	5764551	1927558	391129	407101	74254	266025	651210	226107	10597	353462	1361772
1985 PEAK DAY PARTICIPANTS	2589491	859011	175727	184122	33874	119951	293134	102259	47753	159783	613877
1985 ACTIVITY DAYS (000'S)	335916	110679	22711	23069	4585	15947	38409	13237	6140	21119	80020
1990 PARTICIPANTS ANNUALLY	6156701	2063196	419449	430027	79129	288207	702794	239461	113711	378062	1442665
1990 PEAK DAY PARTICIPANTS	2784402	928595	189723	194996	36081	130263	318307	108621	51599	171555	654662
1990 ACTIVITY DAYS (000'S)	367476	122510	24956	24605	4889	17478	42264	14175	6745	22906	86948

TABLE 7.--DEMOGRAPHIC-BASED PROJECTED RECREATION PARTICIPATION, 19 ACTIVITIES, PENNSYLVANIA, BY REGION, TO 1990 PAGE-- 5

ACTIVITY YEAR MEASURE	ALL PENNA	REGION ONE	REGION TWO	REGION THREE	REGION FOUR	REGION FIVE	REGION SIX	REGION SEVEN	REGION EIGHT	REGION NINE	REGION TEN
HORSEBACK RIDING											
1974 PARTICIPANTS ANNUALLY	1241529	415845	79154	83714	16803	59205	137622	50362	23935	78051	296838
1974 PEAK DAY PARTICIPANTS	217322	70984	13882	15682	2959	10502	23858	9035	4329	13759	52332
1974 ACTIVITY DAYS (000'S)	22340	7559	1451	1524	293	1015	2470	891	421	1374	5342
1980 PARTICIPANTS ANNUALLY	1206953	407520	79764	80932	15792	59220	137176	46807	22835	75793	281114
1980 PEAK DAY PARTICIPANTS	210055	69697	13819	15092	2786	10404	23677	8328	4053	13097	49102
1980 ACTIVITY DAYS (000'S)	23331	8051	1594	1558	294	1059	2636	876	416	1407	5440
1985 PARTICIPANTS ANNUALLY	1233833	413402	82343	83671	16011	59144	139476	48300	22858	77043	291585
1985 PEAK DAY PARTICIPANTS	213442	70648	14087	15408	2803	10256	23946	8567	4071	13269	50387
1985 ACTIVITY DAYS (000'S)	26545	9015	1832	1808	333	1196	2997	1018	472	1605	6269
1990 PARTICIPANTS ANNUALLY	1303018	436765	87691	87587	16936	63253	148864	50447	24192	81249	306034
1990 PEAK DAY PARTICIPANTS	219594	72976	14649	15610	2867	10615	24968	8640	4132	13601	51536
1990 ACTIVITY DAYS (000'S)	28451	9690	1973	1925	358	1302	3240	1082	512	1727	6643
HIKING, NATURE WALKS											
1974 PARTICIPANTS ANNUALLY	4483817	1489389	293229	320835	58872	206811	492420	181980	85871	276370	1078040
1974 PEAK DAY PARTICIPANTS	1257176	414496	82748	92617	16369	57379	137100	51424	24280	77200	303563
1974 ACTIVITY DAYS (000'S)	79589	25853	5214	6067	1048	3675	8658	3324	1576	4918	19256
1980 PARTICIPANTS ANNUALLY	4512107	1507494	302445	323204	58479	212300	507820	177629	84824	277248	1060664
1980 PEAK DAY PARTICIPANTS	1273730	421257	85468	94689	16465	59499	142129	50911	24266	77957	301089
1980 ACTIVITY DAYS (000'S)	79739	26256	5340	6070	1036	3710	8865	3221	1538	4857	18846
1985 PARTICIPANTS ANNUALLY	4698408	1568542	316608	336356	60617	217833	528658	185373	87024	287532	1109865
1985 PEAK DAY PARTICIPANTS	1324847	437766	89291	98620	17115	61034	147865	53099	24958	80830	314269
1985 ACTIVITY DAYS (000'S)	83533	27456	5637	6352	1085	3839	9297	3377	1588	5082	19820
1990 PARTICIPANTS ANNUALLY	4946098	1658074	334884	348981	63621	232419	563624	192950	91942	303078	1156525
1990 PEAK DAY PARTICIPANTS	1392211	462644	94441	102142	17966	64889	157825	55021	26185	84873	326225
1990 ACTIVITY DAYS (000'S)	87209	28886	5930	6526	1134	4045	9871	3466	1647	5290	20412
CAMPING											
1974 PARTICIPANTS ANNUALLY	2909001	970641	190148	203902	38130	133665	320795	117420	55414	179562	699324
1974 PEAK DAY PARTICIPANTS	564715	188312	36902	39947	7483	26086	62344	22784	10768	34833	135256
1974 ACTIVITY DAYS (000'S)	32297	10708	2151	2315	414	1442	3558	1302	613	1981	7812
1980 PARTICIPANTS ANNUALLY	2909214	976276	195156	204668	37710	137401	329223	113729	54701	179384	680966
1980 PEAK DAY PARTICIPANTS	568208	190999	38150	40005	7432	26830	64463	22098	10496	34847	132888
1980 ACTIVITY DAYS (000'S)	32589	10756	2198	2393	421	1519	3677	1299	623	2011	7690
1985 PARTICIPANTS ANNUALLY	3005969	1004945	202857	212575	38900	139906	339711	118135	55464	184687	708789
1985 PEAK DAY PARTICIPANTS	597617	200933	40126	41820	7726	27696	67647	23388	10950	36595	140736
1985 ACTIVITY DAYS (000'S)	33120	10933	2239	2445	430	1528	3732	1324	622	2033	7832
1990 PARTICIPANTS ANNUALLY	3196363	1070362	216610	223252	41247	150679	365010	124590	59191	196675	748747
1990 PEAK DAY PARTICIPANTS	630521	213263	42450	43333	8027	29551	71890	24360	11646	38703	147298
1990 ACTIVITY DAYS (000'S)	35146	11632	2386	2562	456	1644	4015	1392	660	2158	8241

TABLE 7.--DEMOGRAPHIC-BASED PROJECTED RECREATION PARTICIPATION, 19 ACTIVITIES, PENNSYLVANIA, BY REGION, TO 1990 PAGE-- 6

ACTIVITY YEAR MEASURE	ALL PENNA	REGION ONE	REGION TWO	REGION THREE	REGION FOUR	REGION FIVE	REGION SIX	REGION SEVEN	REGION EIGHT	REGION NINE	REGION TEN
OFF-ROAD MOTORCYCLING, SNOWMOBILING											
1974 PARTICIPANTS ANNUALLY	1353929	452751	88322	94107	17461	62761	148947	54519	25519	83453	326089
1974 PEAK DAY PARTICIPANTS	197150	64590	12913	14521	2618	9264	21430	8162	3858	12213	47581
1974 ACTIVITY DAYS (000'S)	33676	11251	2134	2257	444	1631	3698	1374	645	2119	8123
1980 PARTICIPANTS ANNUALLY	1376624	464537	91985	95555	17374	65300	154770	53598	25916	84772	322817
1980 PEAK DAY PARTICIPANTS	197430	64910	13229	14716	2594	9530	21948	7963	3832	12218	46490
1980 ACTIVITY DAYS (000'S)	32853	11214	2154	2156	415	1653	3713	1259	627	2057	7603
1985 PARTICIPANTS ANNUALLY	1415637	474926	95317	99713	17922	66300	158868	55630	26340	86972	333649
1985 PEAK DAY PARTICIPANTS	203267	66454	13735	15330	2692	9699	22588	8238	3892	12550	48089
1985 ACTIVITY DAYS (000'S)	31963	10767	2114	2163	407	1563	3596	1258	605	2006	7484
1990 PARTICIPANTS ANNUALLY	1487084	497058	100919	104486	19076	70878	169200	58180	27716	91654	347917
1990 PEAK DAY PARTICIPANTS	214244	70148	14614	16001	2852	10369	24240	8578	4085	13229	50128
1990 ACTIVITY DAYS (000'S)	32898	10912	2216	2238	430	1639	3756	1285	610	2070	7743
SIGHTSEEING, PLEASURE DRIVING											
1974 PARTICIPANTS ANNUALLY	8017383	2649405	527180	590002	104140	366939	872367	327531	154219	490834	1934766
1974 PEAK DAY PARTICIPANTS	3311987	1098550	216594	240187	43095	154094	361540	134627	63139	203165	796996
1974 ACTIVITY DAYS (000'S)	186931	61776	12182	13676	2431	8760	20313	7655	3593	11486	45058
1980 PARTICIPANTS ANNUALLY	8161579	2707274	548042	603768	105018	380704	908915	325236	154739	498300	1929583
1980 PEAK DAY PARTICIPANTS	3374359	1128047	225334	243400	43176	159077	377206	133161	63356	206372	795230
1980 ACTIVITY DAYS (000'S)	190674	63396	12682	13946	2427	9043	21142	7600	3637	11691	45109
1985 PARTICIPANTS ANNUALLY	8510810	2820857	574642	630205	109569	392023	949412	339771	159569	517931	2016831
1985 PEAK DAY PARTICIPANTS	3489489	1168689	234195	250979	44438	161759	390514	137810	64962	212770	823373
1985 ACTIVITY DAYS (000'S)	196629	65391	13177	14433	2502	9182	21819	7847	3716	12003	46559
1990 PARTICIPANTS ANNUALLY	8939760	2976407	607587	652929	115272	417180	1013661	352438	167675	544695	2091916
1990 PEAK DAY PARTICIPANTS	3618251	1214477	244468	257054	46242	170773	411291	141279	67407	221168	844092
1990 ACTIVITY DAYS (000'S)	203516	67746	13766	14815	2618	9668	23024	8034	3838	12446	47560
SKIING											
1974 PARTICIPANTS ANNUALLY	683007	241158	46581	44118	7870	27478	74997	25438	11512	39520	164335
1974 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1974 ACTIVITY DAYS (000'S)	3892	1302	250	265	51	185	430	157	74	242	936
1980 PARTICIPANTS ANNUALLY	798365	282170	56547	51736	9170	33098	89226	28981	13472	46482	187483
1980 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1980 ACTIVITY DAYS (000'S)	3824	1306	253	255	49	186	435	146	72	237	885
1985 PARTICIPANTS ANNUALLY	942230	323971	67129	63973	11207	40230	105943	35417	16259	55626	222475
1985 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1985 ACTIVITY DAYS (000'S)	3827	1298	255	259	49	183	435	148	70	237	893
1990 PARTICIPANTS ANNUALLY	1036488	353983	73983	71078	12704	45657	117791	39283	18375	62062	241572
1990 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1990 ACTIVITY DAYS (000'S)	4043	1361	271	272	52	196	462	157	74	251	946

TABLE 7.--DEMOGRAPHIC-BASED PROJECTED RECREATION PARTICIPATION, 19 ACTIVITIES, PENNSYLVANIA, BY REGION, TO 1990 PAGE-- 7

ACTIVITY YEAR MEASURE	ALL PENNA	REGION ONE	REGION TWO	REGION THREE	REGION FOUR	REGION FIVE	REGION SIX	REGION SEVEN	REGION EIGHT	REGION NINE	REGION TEN
ICE SKATING											
1974 PARTICIPANTS ANNUALLY	2447782	823372	160071	166759	31765	111449	270525	97841	46062	151031	588907
1974 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1974 ACTIVITY DAYS (000'S)	21106	7064	1357	1426	281	989	2332	855	405	1321	5077
1980 PARTICIPANTS ANNUALLY	2464078	832751	165841	169152	31542	116137	279203	95309	46133	152221	575789
1980 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1980 ACTIVITY DAYS (000'S)	20364	6863	1352	1381	265	989	2314	793	390	1278	4739
1985 PARTICIPANTS ANNUALLY	2552952	854762	173196	178244	32803	118907	288699	99849	46880	157243	602369
1985 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1985 ACTIVITY DAYS (000'S)	20370	6786	1371	1407	267	976	2310	799	377	1272	4804
1990 PARTICIPANTS ANNUALLY	2736522	914887	186601	189841	35301	129156	312661	106552	50517	168822	642184
1990 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1990 ACTIVITY DAYS (000'S)	21884	7271	1482	1502	289	1058	2509	855	406	1364	5148

TABLE 8

RECREATION SUPPLY INDICES (SHARE OF STATE SUPPLY DIVIDED BY SHARE OF POPULATION 5 AND OVER) BY REGION, PENNSYLVANIA. 1974

	All Penna.	Commonwealth Uniform Planning Region									
		One	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten
Population 5 and over in 000's	11,054	3,630	725	828	144	509	1,195	456	216	678	2,673
Swimming	1.0000	.8089	1.1212	1.3294	5.0139	1.1962	1.0219	.9570	.8103	1.6094	.7295
Picnicking	1.0000	.3131	1.2035	1.3441	3.8504	1.7325	1.3955	2.1467	2.0669	1.4300	.9090
Boating, canoeing or waterskiing	1.0000	.1057	.0595	2.4893	2.7787	.4472	.2257	2.1249	1.0258	8.7431	.2051
Fishing	1.0000	.1160	.1968	2.5240	2.9165	.6404	.3163	2.4156	1.5386	7.6718	.2403
Hunting or sport shooting	1.0000	.0429	.4195	.8582	7.7467	3.1002	1.0238	2.9414	7.6418	2.3448	.5178
Golf or miniature golf	1.0000	.5735	1.0403	1.5216	1.0870	1.0746	1.0441	1.3059	1.4207	1.5539	1.1385
Horseback riding	1.0000	.3834	.7917	.6433	3.5978	2.1450	2.3508	1.3714	1.4514	1.8246	.7303
Hiking	1.0000	.1791	.3020	1.6137	11.5128	3.7016	.9387	2.4108	7.3341	.8707	.3399
Camping	1.0000	.1383	.8679	1.1839	6.7592	2.6703	1.9236	1.5385	3.4568	2.6709	.3883
Sightseeing or driving for pleasure	1.0000	.1882	.4927	1.1532	8.1830	3.7037	.7953	1.9747	7.6726	1.8132	.4702
Snow skiing	1.0000	.1657	.4835	3.5103	5.1823	1.9213	.6076	4.3951	3.9543	.2593	.6377
Ice skating	1.0000	.8923	1.0754	1.5416	2.5873	1.1658	.8342	2.0449	2.6003	.9620	.6178

TABLE 9

ZERO INTERCEPT REGRESSION COEFFICIENTS RELATING ACTIVITY DAYS TO DEMOGRAPHIC-BASED EXPECTED PARTICIPATION AND ACCESSIBLE RECREATION SUPPLY, 12 ACTIVITIES, PENNSYLVANIA, 1974

Activity	Fraction of state demographic-based expected participation	Fraction of state supply reachable in stated driving time				
		.5 hr.	1 hr.	2 hr.	4 hr.	R^2
Swimming	.85207	.10101	.00000	-.00560	-.00019	.9790
Picnicking	.83543	.05027	.01046	-.00664	.00175	.9723
Boating, canoeing or waterskiing	.96073	.07403	.01014	-.00809	.00000	.9355
Fishing	.57453	.09161	.04829	-.01587	.00740	.8846
Hunting or sport shooting	.26084	-.02845	.15493	.01560	-.00978	.5992
Golf or miniature golf	.53717	.16043	.00572	.00000	-.00137	.7439
Horseback riding	.42628	-.28740	.34748	-.09551	.01920	.2744
Hiking or nature walks	.65382	.00000	.01138	-.01083	.00897	.8700
Camping	.59206	-.05670	.12795	-.03246	.00690	.8426
Sightseeing or driving for pleasure	.95832	.01400	.00000	-.00269	.00123	.9821
Snow skiing	.45768	.15631	.11956	-.04899	.00807	.3505
Ice skating	.71576	.00000	.09189	-.03525	.00647	.5516

TABLE 10

PROJECTED ACTIVITY DAYS (000's), 1980, USING 1974 DEMOGRAPHIC RATES AT 0%, 10%, 20%, AND 40% EXPANSIONS IN SUPPLY OVER 1974

	Increase in supply over 1974			
	0%	10%	20%	40%
Swimming	279,664	286,275	292,767	305,517
Picnicking	66,245	67,660	69,055	71,784
Boating, canoeing or waterskiing	35,879	35,961	na	na
Fishing	52,617	54,846	na	na
Golf or miniature golf	50,294	52,996	55,644	60,880
Horseback riding	23,658	25,073	26,516	29,409
Hiking or nature walks	77,048	79,136	81,226	85,414
Camping	32,167	33,622	35,075	38,700
Sightseeing or driving for pleasure	189,446	190,466	191,459	193,389
Snow skiing	3,859	4,099	4,340	4,820
Ice skating	19,780	20,311	20,845	21,923

n.a. Supply increment not assigned because of physical limitations.

TABLE 11

SURVEY PERCENT OF POPULATION 5 AND OVER PARTICIPATING, CEILING PERCENT, AND PROJECTED PERCENTS FOR 1980, 1985, AND 1990, 19 ACTIVITIES, PENNSYLVANIA

Activity	1974	1980	1985	1990	Ceiling
Swimming	66.71	68.16	68.83	69.23	69.80
Picnicking	70.56	72.03	72.72	73.13	73.70
Boating, canoeing or waterskiing	30.66	36.97	39.90	41.63	44.12
Fishing	31.93	36.21	38.20	39.37	41.06
Hunting or sport shooting	14.00	16.60	18.00	18.64	19.55
Tennis	24.04	29.42	31.93	33.40	35.53
Golf or miniature golf	29.00	32.52	34.15	35.11	36.50
Basketball	22.16	24.19	25.13	25.68	26.48
Baseball or softball	32.37	34.16	34.99	35.47	36.18
Football	16.46	17.96	18.65	19.06	19.65
Street hockey	4.62	20.75	24.60	25.87	26.48
Bicycling	47.91	51.00	52.44	53.28	54.50
Horseback riding	11.11	18.67	22.17	24.25	27.23
Hiking or nature walks	40.86	44.25	45.83	46.76	48.10
Camping	26.33	32.90	35.96	37.76	40.36
Off-road motorcycling or snowmobiling	12.03	16.35	18.36	19.55	21.26
Sightseeing or driving for pleasure	72.48	73.65	74.20	74.52	74.99
Skiing	4.93	9.43	11.52	12.76	14.54
Ice skating	21.23	25.29	27.18	28.30	29.91

TABLE 12.--GROWTH-ADJUSTED DEMOGRAPHIC-BASED PROJECTED RECREATION PARTICIPATION, 19 ACTIVITIES, PENNSYLVANIA, BY REGION, TO 1990

ACTIVITY YEAR MEASURE	ALL PENNA	REGION ONE	REGION TWO	REGION THREE	REGION FOUR	REGION FIVE	REGION SIX	REGION SEVEN	REGION EIGHT	REGION NINE	REGION TEN
SWIMMING											
1974 PARTICIPANTS ANNUALLY	7641252	2554636	509760	545254	96670	337564	838821	305497	143154	464259	1845637
1974 PEAK DAY PARTICIPANTS	4065969	1366625	275541	288558	49844	173342	446350	160389	74664	244673	985983
1974 ACTIVITY DAYS (000'S)	256790	87341	17406	17758	3132	10836	28255	10007	4641	15345	62069
1980 PARTICIPANTS ANNUALLY	8087093	2701969	549783	586493	102462	369037	906505	317965	151099	492010	1909770
1980 PEAK DAY PARTICIPANTS	4420222	1478464	303869	321856	54954	196765	494296	173190	81967	267193	1047668
1980 ACTIVITY DAYS (000'S)	282092	95247	19490	20016	3482	12462	31631	10904	5147	17007	66705
1985 PARTICIPANTS ANNUALLY	8621062	2868057	588539	630769	109908	391375	966789	341256	159698	523436	2041235
1985 PEAK DAY PARTICIPANTS	4785645	1589944	329940	353698	60352	213906	535807	189384	88471	289178	1134965
1985 ACTIVITY DAYS (000'S)	308899	103332	21413	22331	3873	13732	34685	12091	5625	18625	73192
1990 PARTICIPANTS ANNUALLY	9212333	3072797	631750	667617	117976	424846	1047760	361663	171387	560739	2155798
1990 PEAK DAY PARTICIPANTS	5139873	1711617	355725	377528	65456	233760	584245	202134	95536	311346	1202526
1990 ACTIVITY DAYS (000'S)	335073	112097	23298	24118	4244	15199	38134	13077	6171	20318	78417
PICNICKING											
1974 PARTICIPANTS ANNUALLY	7735480	2557988	505368	564145	101561	358198	843503	316258	149238	475960	1863261
1974 PEAK DAY PARTICIPANTS	3083158	1011945	203034	228567	40171	141287	336519	126544	59797	189936	745358
1974 ACTIVITY DAYS (000'S)	66599	22076	4361	4802	877	3080	7320	2706	1278	4104	15995
1980 PARTICIPANTS ANNUALLY	7959442	2645528	532437	582790	103150	374874	888944	316224	150906	487708	1876881
1980 PEAK DAY PARTICIPANTS	3178303	1047270	212993	238315	41158	148746	354514	127668	60949	194757	751933
1980 ACTIVITY DAYS (000'S)	68506	22777	4581	4966	893	3224	7703	2716	1293	4213	16139
1985 PARTICIPANTS ANNUALLY	8352218	2773636	562066	612135	108019	387460	933721	332446	156219	509690	1976826
1985 PEAK DAY PARTICIPANTS	3324866	1095464	223848	249810	43063	153608	370849	133793	63001	202968	788462
1985 ACTIVITY DAYS (000'S)	72116	24036	4844	5208	932	3341	8098	2855	1342	4410	17050
1990 PARTICIPANTS ANNUALLY	8821957	2942308	597406	637516	113976	414153	1001187	346840	165109	538860	2064602
1990 PEAK DAY PARTICIPANTS	3499465	1159809	237150	259394	45348	163473	396785	138846	66091	213280	819289
1990 ACTIVITY DAYS (000'S)	76257	25548	5142	5427	979	3586	8670	2984	1424	4667	17829
BOATING, CANOEING, WATERSKIING											
1974 PARTICIPANTS ANNUALLY	3741950	1263243	252439	263804	45979	160541	409957	147311	68484	224572	905620
1974 PEAK DAY PARTICIPANTS	832756	275777	55085	61285	10691	37587	90352	33898	15936	50747	201398
1974 ACTIVITY DAYS (000'S)	32833	11212	2221	2274	398	1387	3597	1279	590	1950	7926
1980 PARTICIPANTS ANNUALLY	4664718	1563493	318964	338579	58252	209890	520232	182713	86555	281935	1104105
1980 PEAK DAY PARTICIPANTS	1000589	330927	67257	75110	12890	46646	110741	40087	19105	60954	236872
1980 ACTIVITY DAYS (000'S)	41716	14140	2875	2961	514	1845	4653	1611	759	2502	9857
1985 PARTICIPANTS ANNUALLY	5311595	1766668	364346	391560	67256	239500	593290	210276	98277	321045	1259377
1985 PEAK DAY PARTICIPANTS	1116387	367656	75454	84436	14474	51606	123805	44937	21112	67867	265040
1985 ACTIVITY DAYS (000'S)	48461	16243	3353	3506	608	2162	5422	1896	882	2913	11476
1990 PARTICIPANTS ANNUALLY	5854954	1950463	403373	428716	74839	268636	664141	230273	108941	355134	1370438
1990 PEAK DAY PARTICIPANTS	1214447	401724	82675	90716	15797	56806	137099	48262	22924	73870	284574
1990 ACTIVITY DAYS (000'S)	53851	18045	3738	3877	683	2451	6113	2100	991	3259	12593

TABLE 12.--GROWTH-ADJUSTED DEMOGRAPHIC-BASED PROJECTED RECREATION PARTICIPATION, 19 ACTIVITIES, PENNSYLVANIA, BY REGION, TO 1990

ACTIVITY YEAR MEASURE	ALL PENNA	REGION ONE	REGION TWO	REGION THREE	REGION FOUR	REGION FIVE	REGION SIX	REGION SEVEN	REGION EIGHT	REGION NINE	REGION TEN
FISHING											
1974 PARTICIPANTS ANNUALLY	3541333	1168624	232169	258421	46597	163278	386213	145106	68619	218249	854057
1974 PEAK DAY PARTICIPANTS	846003	281553	56639	61460	10652	37191	92408	34028	15937	51266	204869
1974 ACTIVITY DAYS (000'S)	52322	17106	3442	3904	694	2444	5678	2169	1026	3230	12629
1980 PARTICIPANTS ANNUALLY	4035570	1336072	270827	298300	52566	190318	450268	161145	77117	247732	951225
1980 PEAK DAY PARTICIPANTS	1000734	331736	68040	74441	12647	45463	111415	39811	18901	60787	237493
1980 ACTIVITY DAYS (000'S)	59857	19576	4019	4550	787	2862	6626	2430	1162	3688	14156
1985 PARTICIPANTS ANNUALLY	4424339	1459388	298959	329119	57723	205875	493877	177303	83251	270589	1048255
1985 PEAK DAY PARTICIPANTS	1112509	367607	75926	83591	14184	50337	123991	44493	20851	67359	264170
1985 ACTIVITY DAYS (000'S)	65683	21417	4441	5036	869	3107	7272	2674	1261	4032	15576
1990 PARTICIPANTS ANNUALLY	4819375	1596420	327835	353769	62852	226745	546427	190776	90607	294710	1129234
1990 PEAK DAY PARTICIPANTS	1218010	403679	83595	90693	15625	55910	138056	48283	22869	73898	285402
1990 ACTIVITY DAYS (000'S)	71227	23319	4858	5401	944	3414	8037	2860	1363	4374	16657
HUNTING, SPORT-SHOOTING											
1974 PARTICIPANTS ANNUALLY	1573502	513611	103661	117226	20972	73878	170965	65316	30917	97391	379565
1974 PEAK DAY PARTICIPANTS	141321	50520	9831	9061	1567	5371	15505	5164	2307	7985	34010
1974 ACTIVITY DAYS (000'S)	23358	7534	1526	1785	314	1106	2539	983	468	1457	5645
1980 PARTICIPANTS ANNUALLY	1874073	612970	125982	141844	24737	89933	207850	76025	36381	115734	442617
1980 PEAK DAY PARTICIPANTS	202982	71968	14569	13218	2285	8083	22607	7329	3360	11667	47896
1980 ACTIVITY DAYS (000'S)	27306	8917	1820	2098	361	1305	3031	1113	534	1679	6448
1985 PARTICIPANTS ANNUALLY	2111185	688797	142873	160926	27983	100102	234188	85782	40450	129837	500247
1985 PEAK DAY PARTICIPANTS	265034	91357	19048	18097	3108	11003	29753	9923	4528	15475	62742
1985 ACTIVITY DAYS (000'S)	30637	10002	2057	2352	404	1439	3402	1249	589	1877	7265
1990 PARTICIPANTS ANNUALLY	2302366	754409	157117	173398	30543	110572	260144	92275	43981	141612	538315
1990 PEAK DAY PARTICIPANTS	304175	104150	21861	20971	3679	13079	34534	11499	5361	18059	70982
1990 ACTIVITY DAYS (000'S)	32982	10857	2233	2491	435	1562	3728	1319	629	2013	7715
TENNIS											
1974 PARTICIPANTS ANNUALLY	3254558	1127952	223867	219152	37934	131284	357240	123302	56348	190252	787227
1974 PEAK DAY PARTICIPANTS	1072861	379257	73722	70583	12172	42050	117264	39903	17991	61472	258447
1974 ACTIVITY DAYS (000'S)	69065	24245	4705	4486	797	2818	7576	2586	1170	4024	16659
1980 PARTICIPANTS ANNUALLY	4223758	1439057	294073	296870	51009	182821	471108	161412	75713	251765	999930
1980 PEAK DAY PARTICIPANTS	1470438	518136	104272	97933	16977	60275	163265	53808	24844	84905	346023
1980 ACTIVITY DAYS (000'S)	91123	31725	6352	6078	1072	3923	10160	3387	1591	5386	21449
1985 PARTICIPANTS ANNUALLY	4943400	1659971	344554	357078	61242	217648	553127	192622	89410	296052	1171696
1985 PEAK DAY PARTICIPANTS	1859842	635698	132182	129592	22332	79313	208044	70659	32438	109508	440076
1985 ACTIVITY DAYS (000'S)	108876	37071	7624	7567	1321	4788	12195	4162	1931	6496	25720
1990 PARTICIPANTS ANNUALLY	5498520	1843423	384101	396925	69260	247937	624070	214150	100879	331904	1285871
1990 PEAK DAY PARTICIPANTS	2083824	709989	148346	146031	25715	91554	235929	79388	37173	124100	485599
1990 ACTIVITY DAYS (000'S)	121112	41007	8505	8477	1510	5470	13743	4653	2189	7301	28258

TABLE 12.--GROWTH-ADJUSTED DEMOGRAPHIC-BASED PROJECTED RECREATION PARTICIPATION, 19 ACTIVITIES, PENNSYLVANIA, BY REGION, TO 1990

ACTIVITY YEAR MEASURE	ALL PENNA	REGION ONE	REGION TWO	REGION THREE	REGION FOUR	REGION FIVE	REGION SIX	REGION SEVEN	REGION EIGHT	REGION NINE	REGION TEN
GOLF, MINIATURE GOLF											
1974 PARTICIPANTS ANNUALLY	3581578	1221088	244937	248174	42853	148345	393979	138626	63998	212354	867224
1974 PEAK DAY PARTICIPANTS	913902	318796	62763	61279	10584	36579	100213	34477	15697	52989	220525
1974 ACTIVITY DAYS (000'S)	46827	15833	3168	3297	578	2012	5122	1845	856	2801	11316
1980 PARTICIPANTS ANNUALLY	4289419	1445452	296742	307621	52640	188389	479673	166394	78414	257785	1016309
1980 PEAK DAY PARTICIPANTS	1153965	400164	81234	78823	13586	48428	128555	43110	20045	67630	272390
1980 ACTIVITY DAYS (000'S)	55055	18421	3779	3997	690	2489	6129	2161	1022	3335	13032
1985 PARTICIPANTS ANNUALLY	4831478	1613016	334812	353278	60443	214309	541157	189920	88423	290730	1145390
1985 PEAK DAY PARTICIPANTS	1383445	469698	97689	97715	16791	59610	154923	53068	24447	81964	327540
1985 ACTIVITY DAYS (000'S)	61368	20362	4227	4533	782	2786	6844	2434	1137	3716	14546
1990 PARTICIPANTS ANNUALLY	5308628	1772163	368968	386641	67272	240557	603317	208036	98164	321390	1242120
1990 PEAK DAY PARTICIPANTS	1538584	520728	108869	108994	19107	68185	174514	59150	27741	92185	359111
1990 ACTIVITY DAYS (000'S)	67159	22286	4649	4934	864	3110	7611	2649	1254	4090	15712
BASKETBALL											
1974 PARTICIPANTS ANNUALLY	2480071	830420	158673	167156	33102	117507	274137	100560	47617	155431	595468
1974 PEAK DAY PARTICIPANTS	629816	213825	41758	42683	7909	27752	69298	24835	11585	38231	151940
1974 ACTIVITY DAYS (000'S)	97761	32618	6171	6510	1317	4709	10766	4009	1904	6195	23562
1980 PARTICIPANTS ANNUALLY	2643304	893620	175047	179623	34247	128764	299350	102682	50417	165015	614539
1980 PEAK DAY PARTICIPANTS	718524	243398	48995	50071	8961	32799	80685	27746	13309	43762	168798
1980 ACTIVITY DAYS (000'S)	100574	34057	6614	6709	1313	5027	11415	3899	1954	6348	23238
1985 PARTICIPANTS ANNUALLY	2780611	928768	186365	193557	36037	132527	313500	109424	51747	172894	655792
1985 PEAK DAY PARTICIPANTS	793224	265350	54592	56906	10021	35968	89035	31070	14528	48183	187571
1985 ACTIVITY DAYS (000'S)	102155	33988	6834	7055	1350	4984	11566	4030	1918	6423	24007
1990 PARTICIPANTS ANNUALLY	3021627	1005291	204341	209599	39419	145720	344465	118219	56093	187563	710917
1990 PEAK DAY PARTICIPANTS	876192	291998	60639	62836	11209	40502	99647	34273	16121	53413	205554
1990 ACTIVITY DAYS (000'S)	111277	36650	7542	7682	1493	5475	12757	4366	2055	6976	26282
BASEBALL, SOFTBALL											
1974 PARTICIPANTS ANNUALLY	3579339	1199159	229126	242291	48542	169428	397282	144918	69021	224423	855149
1974 PEAK DAY PARTICIPANTS	1116078	374136	71414	75285	15302	52483	124147	45197	21652	70160	266302
1974 ACTIVITY DAYS (000'S)	87584	29293	5557	5842	1220	4129	9740	3578	1729	5559	20937
1980 PARTICIPANTS ANNUALLY	3684939	1242769	244305	250903	48508	179248	419133	143260	69670	230270	856873
1980 PEAK DAY PARTICIPANTS	1137828	383016	75672	77450	15195	55283	129998	44217	21453	71303	264241
1980 ACTIVITY DAYS (000'S)	86287	28975	5732	5838	1178	4248	9905	3361	1660	5469	19921
1985 PARTICIPANTS ANNUALLY	3882039	1297887	259759	267834	50598	184228	438830	152426	71776	241435	917266
1985 PEAK DAY PARTICIPANTS	1206243	402178	80933	83014	15897	57024	136900	47365	22179	75176	285577
1985 ACTIVITY DAYS (000'S)	90187	29790	6084	6230	1224	4317	10293	3554	1659	5673	21363
1990 PARTICIPANTS ANNUALLY	4195451	1404421	282641	286712	54414	201355	478261	163097	77787	260261	986502
1990 PEAK DAY PARTICIPANTS	1312768	439553	88618	89072	17088	62633	150008	50861	24225	81454	309256
1990 ACTIVITY DAYS (000'S)	100204	33199	6802	6816	1339	4811	11503	3899	1837	6253	23744

TABLE 12.--GROWTH-ADJUSTED DEMOGRAPHIC-BASED PROJECTED RECREATION PARTICIPATION, 19 ACTIVITIES, PENNSYLVANIA, BY REGION, TO 1990

ACTIVITY YEAR MEASURE	ALL PENNA	REGION ONE	REGION TWO	REGION THREE	REGION FOUR	REGION FIVE	REGION SIX	REGION SEVEN	REGION EIGHT	REGION NINE	REGION TEN
FOOTBALL											
1974 PARTICIPANTS ANNUALLY	1902619	638987	123379	129276	24938	87735	209999	76518	36137	118058	457592
1974 PEAK DAY PARTICIPANTS	270767	87601	18052	20303	3505	12288	29749	11137	5298	16890	65944
1974 ACTIVITY DAYS (000'S)	38734	12905	2481	2641	521	1821	4262	1585	755	2434	9329
1980 PARTICIPANTS ANNUALLY	2063855	696227	138114	142325	26458	98341	232996	80273	39014	127858	482249
1980 PEAK DAY PARTICIPANTS	290920	93539	19425	22800	3833	13771	32589	11976	5756	18064	69167
1980 ACTIVITY DAYS (000'S)	40249	13497	2676	2786	531	1967	4553	1580	780	2526	9352
1985 PARTICIPANTS ANNUALLY	2205890	735384	149150	155692	28372	103266	248159	86959	40966	136215	521727
1985 PEAK DAY PARTICIPANTS	301261	97318	20075	23721	3983	14090	33648	12410	5884	18577	71555
1985 ACTIVITY DAYS (000'S)	41860	13798	2829	2981	557	2008	4726	1664	784	2616	9897
1990 PARTICIPANTS ANNUALLY	2401729	799140	163738	168798	31156	114014	273544	93984	44565	148162	564628
1990 PEAK DAY PARTICIPANTS	318096	103897	21285	24653	4188	14945	36184	12872	6144	19439	74489
1990 ACTIVITY DAYS (000'S)	46100	15160	3145	3258	618	2228	5271	1817	857	2868	10879
STREET HOCKEY											
1974 PARTICIPANTS ANNUALLY	541457	181711	34814	36160	7332	24864	59984	21939	10524	34030	130099
1974 PEAK DAY PARTICIPANTS	60854	20294	3830	4023	882	2824	6779	2516	1243	3918	14545
1974 ACTIVITY DAYS (000'S)	12651	4230	795	834	178	598	1404	520	253	808	3031
1980 PARTICIPANTS ANNUALLY	2317012	766335	155053	171798	30170	109244	257972	92772	44564	142421	546683
1980 PEAK DAY PARTICIPANTS	240101	78639	16052	17748	3395	11666	27250	9684	4719	15121	55827
1980 ACTIVITY DAYS (000'S)	50886	16910	3346	3699	687	2473	5713	2048	1010	3183	11817
1985 PARTICIPANTS ANNUALLY	2844610	936076	192006	213076	37103	132097	316798	114331	53683	173876	675564
1985 PEAK DAY PARTICIPANTS	294803	95029	19991	21975	4140	13904	33393	11954	5504	18421	70492
1985 ACTIVITY DAYS (000'S)	59924	19510	4030	4435	811	2857	6725	2415	1126	3744	14271
1990 PARTICIPANTS ANNUALLY	3167710	1047010	215417	234044	41355	148514	358698	125706	59610	193402	743954
1990 PEAK DAY PARTICIPANTS	341339	111860	23276	24613	4628	15979	38990	13488	6328	21047	81130
1990 ACTIVITY DAYS (000'S)	69047	22622	4671	5022	929	3290	7833	2756	1295	4257	16373
BICYCLING											
1974 PARTICIPANTS ANNUALLY	5433201	1820746	356749	377570	70781	246406	600058	217807	102781	334427	1305876
1974 PEAK DAY PARTICIPANTS	2479217	829834	162650	171512	32733	111832	274568	99625	47382	153496	595585
1974 ACTIVITY DAYS (000'S)	343656	114922	21885	23135	4840	16033	38299	14031	6822	21810	81879
1980 PARTICIPANTS ANNUALLY	5831181	1955203	393028	412168	75242	272700	658314	227973	109218	358629	1368706
1980 PEAK DAY PARTICIPANTS	2624483	874371	177108	186641	34452	123465	297370	103127	49510	162622	615817
1980 ACTIVITY DAYS (000'S)	340596	113286	22747	23452	4722	16641	39100	13372	6498	21618	79159
1985 PARTICIPANTS ANNUALLY	6272887	2092202	425152	448175	80896	289603	706588	247148	115854	384149	1483120
1985 PEAK DAY PARTICIPANTS	2817883	932379	191014	202700	36904	130585	318063	111775	52227	173657	668579
1985 ACTIVITY DAYS (000'S)	365517	120127	24687	25397	4994	17353	41673	14469	6715	22953	87149
1990 PARTICIPANTS ANNUALLY	6781349	2266955	461742	479746	87338	317364	772605	264864	125778	415721	1589236
1990 PEAK DAY PARTICIPANTS	3066937	1020300	208854	217543	39825	143447	349928	120143	57075	188648	721174
1990 ACTIVITY DAYS (000'S)	404722	134604	27473	27449	5396	19237	46458	15677	7460	25188	95781

TABLE 12.--GROWTH-ADJUSTED DEMOGRAPHIC-BASED PROJECTED RECREATION PARTICIPATION, 19 ACTIVITIES, PENNSYLVANIA, BY REGION, TO 1990

ACTIVITY YEAR MEASURE	ALL PENNA	REGION ONE	REGION TWO	REGION THREE	REGION FOUR	REGION FIVE	REGION SIX	REGION SEVEN	REGION EIGHT	REGION NINE	REGION TEN
HORSEBACK RIDING											
1974 PARTICIPANTS ANNUALLY	1241529	415845	79154	83714	16803	59205	137622	50362	23935	78051	296838
1974 PEAK DAY PARTICIPANTS	217322	70984	13882	15682	2959	10502	23858	9035	4329	13759	52332
1974 ACTIVITY DAYS (000'S)	22340	7559	1451	1524	293	1015	2470	891	421	1374	5342
1980 PARTICIPANTS ANNUALLY	2054770	686133	136593	145830	26750	98750	230702	81091	39158	127400	482363
1980 PEAK DAY PARTICIPANTS	357868	117391	23666	27201	4720	17394	39831	14432	6955	22020	84258
1980 ACTIVITY DAYS (000'S)	39728	13553	2730	2807	498	1770	4434	1519	714	2365	9339
1985 PARTICIPANTS ANNUALLY	2526918	838031	169579	182845	32788	118715	282604	100611	47430	155465	598850
1985 PEAK DAY PARTICIPANTS	437481	143271	29013	33681	5743	20659	48537	17853	8453	26783	103488
1985 ACTIVITY DAYS (000'S)	54385	18276	3773	3951	683	2409	6075	2121	980	3238	12880
1990 PARTICIPANTS ANNUALLY	2916278	969389	197382	209509	37902	138318	330857	114818	54728	179131	684244
1990 PEAK DAY PARTICIPANTS	491840	162023	32974	37360	6420	23290	55515	19673	9354	29995	115236
1990 ACTIVITY DAYS (000'S)	63705	21510	4440	4604	802	2860	7202	2464	1159	3808	14857
HIKING, NATURE WALKS											
1974 PARTICIPANTS ANNUALLY	4483817	1489389	293229	320835	58872	206811	492420	181980	85871	276370	1078040
1974 PEAK DAY PARTICIPANTS	1257176	414496	82748	92617	16369	57379	137100	51424	24280	77200	303563
1974 ACTIVITY DAYS (000'S)	79589	25853	5214	6067	1048	3675	8658	3324	1576	4918	19256
1980 PARTICIPANTS ANNUALLY	4895011	1632532	328046	353132	63429	230212	549714	193275	92289	300538	1151844
1980 PEAK DAY PARTICIPANTS	1381912	456215	92703	103461	17860	64532	153858	55396	26403	84507	326977
1980 ACTIVITY DAYS (000'S)	86514	28435	5792	6632	1124	4025	9596	3505	1674	5265	20466
1985 PARTICIPANTS ANNUALLY	5280526	1758235	355834	382098	68199	244728	592612	209183	98226	322805	1248606
1985 PEAK DAY PARTICIPANTS	1489125	490727	100355	112034	19256	68590	165761	59920	28173	90750	353559
1985 ACTIVITY DAYS (000'S)	93895	30778	6336	7216	1221	4315	10422	3811	1793	5705	22298
1990 PARTICIPANTS ANNUALLY	5672108	1895919	384298	405240	73122	266234	645149	222204	105805	347049	1327088
1990 PEAK DAY PARTICIPANTS	1596724	529029	108377	118614	20649	74358	180665	63365	30135	97192	374340
1990 ACTIVITY DAYS (000'S)	100024	33032	6806	7579	1304	4637	11300	3992	1896	6058	23422
CAMPING											
1974 PARTICIPANTS ANNUALLY	2909001	970641	190148	203902	38130	133665	320795	117420	55414	179562	699324
1974 PEAK DAY PARTICIPANTS	564715	188312	36902	39947	7483	26086	62344	22784	10768	34833	135256
1974 ACTIVITY DAYS (000'S)	32297	10708	2151	2315	414	1442	3558	1302	613	1981	7812
1980 PARTICIPANTS ANNUALLY	3647400	1218026	244522	261760	47259	171925	410275	143751	68994	224318	856570
1980 PEAK DAY PARTICIPANTS	712395	238303	47800	51165	9315	33573	80334	27932	13239	43577	167157
1980 ACTIVITY DAYS (000'S)	40865	13420	2754	3061	528	1902	4582	1643	786	2515	9674
1985 PARTICIPANTS ANNUALLY	4131925	1373437	278693	299846	53524	191893	463805	163929	76999	252950	976849
1985 PEAK DAY PARTICIPANTS	821451	274619	55127	58988	10631	37991	92356	32454	15203	50120	193962
1985 ACTIVITY DAYS (000'S)	45536	14943	3077	3450	592	2098	5096	1837	864	2785	10795
1990 PARTICIPANTS ANNUALLY	4596283	1531231	311765	330204	59486	215922	522539	180666	85822	281527	1077121
1990 PEAK DAY PARTICIPANTS	906622	305093	61097	64090	11577	42349	102912	35322	16884	55399	211899
1990 ACTIVITY DAYS (000'S)	50551	16642	3434	3789	658	2359	5749	2018	957	3089	11856

TABLE 12.--GROWTH-ADJUSTED DEMOGRAPHIC-8ASED PROJECTED RECREATION PARTICIPATION, 19 ACTIVITIES, PENNSYLVANIA, 8Y REGION, TO 1990

ACTIVITY YEAR MEASURE	ALL PENNA	REGION ONE	REGION TWO	REGION THREE	REGION FOUR	REGION FIVE	REGION SIX	REGION SEVEN	REGION EIGHT	REGION NINE	REGION TEN
OFF-ROAD MOTORCYCLING, SNOWMO8ILING											
1974 PARTICIPANTS ANNUALLY	1353929	452751	88322	94107	17461	62761	148947	54519	25519	83453	326089
1974 PEAK DAY PARTICIPANTS	197150	64590	12913	14521	2618	9264	21430	8162	3858	12213	47581
1974 ACTIVITY DAYS (000'S)	33676	11251	2134	2257	444	1631	3698	1374	645	2119	8123
1980 PARTICIPANTS ANNUALLY	1859017	623001	124278	132400	23640	87882	208041	73107	35212	114202	437254
1980 PEAK DAY PARTICIPANTS	266708	87062	17874	20393	3530	12834	29506	10862	5208	16464	62975
1980 ACTIVITY DAYS (000'S)	44351	15040	2910	2988	564	2220	4990	1718	852	2771	10298
1985 PARTICIPANTS ANNUALLY	2150996	716276	144875	155960	27496	100265	240317	85380	40311	131648	508468
1985 PEAK DAY PARTICIPANTS	308976	100235	20878	23982	4132	14680	34173	12646	5959	19002	73289
1985 ACTIVITY DAYS (000'S)	48552	16238	3213	3382	624	2358	5439	1930	926	3037	11405
1990 PARTICIPANTS ANNUALLY	2405121	800192	163278	173611	31029	113675	272800	94777	45090	147420	563249
1990 PEAK DAY PARTICIPANTS	346609	112937	23646	26592	4640	16639	39088	13977	6649	21283	81158
1990 ACTIVITY DAYS (000'S)	53192	17565	3586	3718	699	2621	6055	2092	993	3329	12535
SIGHTSEEING, PLEASURE DRIVING											
1974 PARTICIPANTS ANNUALLY	8017383	2649405	527180	590002	104140	366939	872367	327531	154219	490834	1934766
1974 PEAK DAY PARTICIPANTS	3311987	1098550	216594	240187	43095	154094	361540	134627	63139	203165	796996
1974 ACTIVITY DAYS (000'S)	186931	61776	12182	13676	2431	8760	20313	7655	3593	11486	45058
1980 PARTICIPANTS ANNUALLY	8290757	2749113	556610	614063	106716	386845	922971	330580	157312	506198	1960349
1980 PEAK DAY PARTICIPANTS	3427744	1145478	228856	247549	43874	161640	383037	135349	64410	209643	807908
1980 ACTIVITY DAYS (000'S)	193692	64376	12880	14184	2467	9189	21469	7725	3697	11876	45828
1985 PARTICIPANTS ANNUALLY	8705702	2883741	587704	645877	112152	401149	970705	347838	163371	529778	2063387
1985 PEAK DAY PARTICIPANTS	3569358	1194740	239518	257220	45485	165519	399270	141082	66508	217636	842380
1985 ACTIVITY DAYS (000'S)	201132	66849	13476	14792	2561	9396	22308	8033	3805	12277	47634
1990 PARTICIPANTS ANNUALLY	9183642	3055563	624121	672237	118510	428632	1040930	362371	172370	559485	2149423
1990 PEAK DAY PARTICIPANTS	3716909	1246772	251120	264654	47540	175452	422351	145260	69292	227171	867297
1990 ACTIVITY DAYS (000'S)	209068	69548	14141	15253	2692	9933	23644	8261	3946	12784	48868
SKIING											
1974 PARTICIPANTS ANNUALLY	683007	241158	46581	44118	7870	27478	74997	25438	11512	39520	164335
1974 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1974 ACTIVITY DAYS (000'S)	3892	1302	250	265	51	185	430	157	74	242	936
1980 PARTICIPANTS ANNUALLY	1290032	443321	89306	89272	15588	56357	143600	48925	23009	76620	304034
1980 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1980 ACTIVITY DAYS (000'S)	6201	2060	400	441	83	316	701	247	123	391	1440
1985 PARTICIPANTS ANNUALLY	1682816	566731	116782	120588	20887	74726	188004	65452	30405	100799	398442
1985 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1985 ACTIVITY DAYS (000'S)	6854	2277	444	488	92	340	772	274	132	430	1606
1990 PARTICIPANTS ANNUALLY	1957173	657520	136220	140359	24732	88926	221737	76063	35865	118172	457579
1990 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1990 ACTIVITY DAYS (000'S)	7654	2538	499	538	102	381	871	303	145	479	1797

TABLE 12.--GROWTH-ADJUSTED DEMOGRAPHIC-BASED PROJECTED RECREATION PARTICIPATION, 19 ACTIVITIES, PENNSYLVANIA, BY REGION, TO 1990

ACTIVITY YEAR MEASURE	ALL PENNA	REGION ONE	REGION TWO	REGION THREE	REGION FOUR	REGION FIVE	REGION SIX	REGION SEVEN	REGION EIGHT	REGION NINE	REGION TEN
ICE SKATING											
1974 PARTICIPANTS ANNUALLY	2447782	823372	160071	166759	31765	111449	270525	97841	46062	151031	588907
1974 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1974 ACTIVITY DAYS (000'S)	21106	7064	1357	1426	281	989	2332	855	405	1321	5077
1980 PARTICIPANTS ANNUALLY	2914250	980064	195924	204024	37386	137213	328690	113633	54847	179628	682841
1980 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1980 ACTIVITY DAYS (000'S)	24084	8077	1597	1665	315	1168	2724	945	464	1508	5620
1985 PARTICIPANTS ANNUALLY	3238814	1079369	219326	231345	41726	150580	364372	127733	59993	198823	765547
1985 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1985 ACTIVITY DAYS (000'S)	25841	8570	1736	1827	340	1235	2916	1022	483	1608	6106
1990 PARTICIPANTS ANNUALLY	3587957	1195556	244363	254734	46390	168845	408526	140624	66706	220429	841784
1990 PEAK DAY PARTICIPANTS	0	0	0	0	0	0	0	0	0	0	0
1990 ACTIVITY DAYS (000'S)	28691	9502	1940	2015	380	1382	3278	1128	535	1780	6748

TABLE 13

SUPPLY-AND-GROWTH-ADJUSTED DEMOGRAPHIC-BASED PROJECTED RECREATION PARTICIPATION TO 1990, AT FOUR LEVELS

(Thousands of activity days)

Activity	Year	Supply index 1.00	1.10	1.20	1.40
Swimming	1980	284,607	291,336	297,942	310,918
	1985	311,653	318,969	326,153	340,315
	1990	338,061	345,916	353,638	368,914
Picnicking	1980	67,691	69,136	70,562	73,350
	1985	71,258	72,775	74,269	77,197
	1990	75,349	76.945	78,518	81,601
Boating, canoeing or waterskiing	1980	41.705	41,800		
	1985	48,448	48,558		
	1990	53,836	53,959		
Fishing	1980	59.712	62,242		
	1985	65,524	68,304		
	1990	71,055	74,069		
Hunting, sport shooting	1980	26,915			
	1985	30,198			
	1990	32,509			
Golf, miniature golf	1980	54,894	57,843	60,732	66,448
	1985	61,188	64,460	67,673	74,029
	1990	66,962	70,511	74,001	80,915
Horseback riding	1980	40,285	42,695	45,151	50,078
	1985	55,148	58,491	61,887	68,694
	1990	64,598	68,515	72,486	80,451
Hiking, nature walks	1980	83,594	85,859	88,127	92,671
	1985	90,726	93,184	95,645	100,573
	1990	96,648	99,264	101,882	107,130
Camping	1980	40,337	42,161	43,983	48,529
	1985	44,947	46,992	49,046	54,533
	1990	49,897	52,170	54,457	59,206
Sightseeing, pleasure driving	1980	192,444	193,481	194,489	196,450
	1985	199,836	200,907	201,948	203,975
	1990	207,722	208,829	209,905	212,001
Skiing	1980	6,258	6,648	7,038	7,816
	1985	6,916	7,350	7,784	8,649
	1990	7,723	8,210	8,695	9,664
Ice skating	1980	23,393	24,021	24,652	25,927
	1985	25,100	25,776	26,459	27,833
	1990	27,868	28,614	29,369	30,889

chapter VI

Needs

Chapter VI

RECREATIONAL NEEDS

INTRODUCTION

The keystone of any recreation plan is an analysis of the degree to which current needs are being satisfied or not satisfied and what changes in these needs are likely to occur in the future. However, in order to determine whether needs are being satisfied, it is essential to have an understanding of exactly what are the needs. Because government agencies are in the business of providing recreation facilities and conserving natural resources, in the past, recreation plans have focussed on acquisition and development needs.

The traditional means of determining these recreational needs have relied heavily on the use of standards which model user patterns and draw conclusions about the adequacy of existing supply. Such standards define how many square feet of park space should be provided to meet the needs of a given number of people. These standards are useful and are employed in evaluating regional and interstate differences, in designing facilities and in arriving at a rough assessment of local government supply.

Despite these uses of "standards" evaluation, overall analysis of needs requires a broader approach that includes more elements influencing participation. Unique areas that should be preserved, for example, could not be identified in a "standards" analysis. Also, such an analysis would not be sensitive to the particular needs of individual communities.

Consequently, the Department of Community Affairs encourages communities to evaluate their recreational needs on the basis of their own perceptions rather than as a result of a formula. In accord, DCA does not encourage communities to build facilities if the purpose is to bring the community "up to par."

This is not to say that analytical methods should not be employed in evaluating recreation needs. The "Components Concept", which relates community needs with the income levels, is proving to be a useful tool in setting priorities for state assistance.

While recreation area and facility standards are important to the recreation planning process, this plan has tried to expand the perspective by attuning its objectives to other needs as well. Consequently, needs such as those which must be met by local government or which require organizational response rather than facility construction are treated in depth.

This chapter is composed of four sections, each of which analyzes recreational needs from a different perspective.

The first section deals, on an activity-by-activity basis, with what kinds of facilities and resources are needed throughout the State regardless of who should or can respond to the need. This analysis is based on a statewide telephone survey and takes into account projected growth factors in each of the activities.

The second section analyzes needs at the regional level and is based on a questionnaire survey conducted in each of the ten Uniform Planning Regions. The results did not disclose great differences among the regions, but are valuable because they corroborate the findings of other analyses in the plan.

The third section analyzes the day-to-day, close-to-home kinds of recreation needs which historically have been the responsibility of local government to satisfy. A special effort was made to identify the needs of urban residents by analyzing the supply of currently available municipal recreation facilities, the role which local government plays in providing recreation and the special problems which must be confronted in the urban environment in order to provide recreation programs and facilities to urban residents.

The fourth section is an analysis of the specialized recreational needs of physically and mentally handicapped persons. This special study is based upon the results of a special statewide telephone survey that was conducted in conjunction with the survey done to determine statewide activity needs.

A-Statewide Needs

STATEWIDE FACILITY NEEDS

Introduction

The most common method of determining what recreation facilities are needed has been to estimate the capacity of respective facilities and compare it to the demand for them: i.e., the people who have been participating in an activity that requires these facilities. Such an approach generally deals with the relationship between cubic feet of swimming pool space and the number of swimmers that can be immersed at a given moment. This approach has several drawbacks. First of all, it requires a galaxy of very specific statistics, and secondly, it does not provide convincing answers about when a given supply is used, access to a supply, its condition, how many people know about it, how many people would make use of a supply but for whatever reason have not so far and how many people want to use the same facility. Consequently, the Interagency Recreation Planning Committee and the Office of State Planning and Development adopted a method for determining facility needs which combines many of the analytical elements needed to answer these questions.

Since it was considered important to know not only what activities people have been participating in but also what they would like to do in the future, a sample survey was conducted. This survey also elicited information pertaining to the condition and proximity of facilities and demographic characteristics which influence recreation selection and rates of participation.

Based on the survey data, participation rates for 1974 were estimated for nineteen outdoor activities. Then, by using the analytical techniques described in the preceding chapter, "Recreation Demand", participation rates were projected to 1980, 1985, 1990. These projections are particularly useful because they take into account the influences that supply can have on demand.

In the following pages the most important results of these analyses are discussed for each of the nineteen activities. The term "activity day", in this context, means a single separate day on which a particular recreational activity occurred. In the case where a person participated in more than one activity on a given day, an activity day is counted for each activity.

Sightseeing and Driving for Pleasure

Together, these two activities involved a higher percentage of Pennsylvania's population than any other outdoor recreational activity. In 1974, 72.5% went sightseeing or driving for pleasure for a total of 185 million activity days or about 23 times per participant. The per capita rate for 1974 was 16.9 days.

Lacking specific information, it is assumed that the incidence of out-of-state people who went sightseeing or driving for pleasure in Pennsylvania is comparable to the percentage of Pennsylvanians who left the State for these activities. This was 14.8% in 1974. Major outflow destinations include the New Jersey Shore, New York's Southern Tier, and, to a lesser extent, the shore areas along the Chesapeake Bay. Major inflow areas have included the Lancaster County Dutch Country, Presque Isle, Pymantuning and the Poconos.

At least theoretically, all of the Commonwealth's 114 thousand mile road network is available for pleasure driving and sightseeing. Of that system, 1,567 miles of roads have been identified for potential inclusion in a National Scenic Highway System. Sightseeing and pleasure driving are also important aspects of the recreational value of State parks, forests, game lands, and county and local parks. The State's rich legacy of historical sites and museums, as well as wildlife areas, nature centers, natural lakes and reservoirs all serve as focal points for road-oriented activities.

Considering just the projected growth in Pennsylvania's population and the demographic changes in its composition, driving for pleasure and sightseeing will entail 22 million more activity days by 1990 with 75% of the population participating an average of 22.8 days annually. However, there are several factors which could not be taken into account in the projections, but which could have a major influence on participation rates in these activities in the next fifteen years.

The first of these factors is that fuel costs could skyrocket or fuel rationing be mandated or a combination of both could occur. On the other hand, it is possible that bus transportation or other forms of group travel will become more popular and offset, to some degree, the impediments that the first two factors would certainly effect. The best guess, however, is that the incidence of driving for pleasure will probably decline in the years ahead, while destination-oriented sightseeing will probably stabilize.

In view of these factors and the prohibitive cost of providing highways or roads specifically for sightseeing and pleasure driving, it does not appear that there is a justifiable need for this kind of facility construction. Rather, Commonwealth efforts should be directed to improving the quality of the existing network. Also, the Pennsylvania Department of Transportation should support aggressively the inauguration and funding of a Federal Scenic Highway System to help the designation of routes that are particularly scenic and to ensure the removal of billboards and the screening in of junk yards. The routes of scenic roads should be publicized. Finally, PennDOT should investigate means to improve the efficiency of mass transit systems in promoting and accommodating group excursions.

Bicycling

In 1974, 49.2 percent of Pennsylvania's population rode a bicycle, but if the total number of separate occasions on which this activity took place is the measure of importance, bicycling, which had 343 million activity days, ranks as *the* most important recreation activity in Pennsylvania.

As might be expected bicycling is an activity that is inversely related to age as the following table shows:

Age	% who bicycled
5-9	81.4
10-19	85.4
20-29	59.1
30-44	47.9
45-64	20.6
65+	3.1

Also, participation rates for bicycling increase as family income increases:

Household Income	% who bicycled
$4,000	19.7
4-6,999	21.4
7-9,999	46.0
10-14,999	56.0
15,000+	63.7

By 1990 the growth in bicycling attributable to population increases and demographic changes will be almost 61 million activity days. However, other factors suggest that the growth may be much greater.

In 1974, two-thirds of all households interviewed in the demand survey had one or more bicycles. Of those who did not bicycle, twelve percent expressed an interest in doing so. Of these, 38.8 percent accounted their non-participation to not having a bicycle. More significantly, however, fifty-six percent of all households having bicycles had purchased one or more during the preceding year. According to the American Bicycle Institute, national bicycle sales have exceeded automobile sales.

Bicycling is primarily a local recreation activity. Ninety percent of the people interviewed in the demand survey who bicycled said that they started from home as opposed to taking their bicycle to some destination and then riding; ninety-two percent said that their most recent bicycling experience was done within the rela-

tively brief time span of a few hours as opposed to a vacation or overnight trip; seventy-four percent said that their most recent occasion was on a regular weekday as opposed to a weekend; and, not suprisingly, almost ninety-six percent of all bicyclists said that they did their bicycling in Pennsylvania. Although at the present time bicycling is primarily an activity for the young, the growth which is being experienced is in the over twenty age categories.

In response to the rapidly increasing number of bicycles, the Pennsylvania Department of Transportation, with the assistance of many other State agencies and citizen groups, is currently developing a statewide Bicycle Plan and Policy Study. According to the Bicycle Policy Committee, one of the highest priority needs of the bicyclist is safety orientation, including hazard recognition, proficiency testing, bicycle maintenance, as well as the general precepts of safe riding.

During 1973 the U.S. Department of Transportation recognized the value of bicycling as an alternative transportation mode. Consequently, U. S. DOT allowed that states could use a portion of their regular highway grant for the construction of bikeways. Although from a purely practical point of view, this recognition on the part of U. S. DOT was a step in the right direction, the construction of separate facilities is not thought to be an adequate response to meeting bicyclist needs. Separate bikeways are expensive to construct. Without right-of-ways, separate bikeways are estimated to cost $30,000 per mile. Once built they require constant maintenance and may have a life expectancy of only 15 years. Therefore, although bikeways are necessary in the major metropolitan areas of Pennsylvania, the major response must be to make safety accommodations for bicyclists on existing State and local streets and roads. Consequently, although Commonwealth agencies, especially PennDOT, must assist in meeting bicyclists' needs, the major initiative must come from the local and county governments. In many areas safety accommodations are as simple as posting signs and improving road shoulders. In other areas separate facilities will be needed.

Picnicking

Picnicking is one of the most universal and most popular recreation activities. In 1974, seven out of every ten Pennsylvanians picnicked for a total of 65 million activity days for an average of six picnics per picknicker. Picnicking is a family-oriented activity, the traditional way to enjoy summer holidays. Participation, which is projected to rise to 76 million activity days by 1990, will increase in proportion to population growth.

Picnicking is also an activity which is frequently part of a recreation day which might include swimming, boating, biking, sightseeing, softball, or any of a hundred other sports or pastimes. Consequently, while this plan does recognize a great need for picnic facilities per se, it does emphasize the need for picnicking accommodations at recreation areas such as parks, lakes, hiking trails, or scenic overlooks.

It should also be recognized that picnicking accommodations need not necessarily be construed as tables, fires rings, or pavilions. The 2,500-acre Fairmount Park in Philadelphia, for example, while it does not have extensive accommodations, is still a popular spot for picnickers. A blanket thrown on the grass can be just as satisfactory as a table. In such areas trash cans and lavatory facilities may be all that is desirable. The only real criterion for a picnic area is a pleasant background.

Results of the demand survey indicate that most people go to public areas for their picnics and that overcrowding is not a problem. Only twelve percent of those who picnic said that they were inconvenienced on their most recent outing by overcrowding. Sixty-three percent said that their most recent picnic was at a public facility, and of these more than two-thirds went to a State facility. Since more than eighty-five percent of those who picnic said that they travelled less than 30 minutes on their most recent outing, it would appear that most Pennsylvanians live in fairly close proximity to State facilities attractive to picnickers. On the other hand, however, a comparison by region of the ratio of population to picnic tables indicates that the metropolitan areas of Philadelphia (Region 1) and Pittsburgh (Region 10) were significantly less supplied than the rest of the State. Since the number of picnic tables, which was the only data available for this comparison, is only partially reflective of the entire picnicking picture, more data is needed. Nevertheless, picnic areas or their lack is closely related with the problems of urban and suburban sprawl and attendant open space deficiencies, which are characteristic of parts of Regions 1 and 2. Better utilization of existing State and local open space areas and more foresight in land development would alleviate part of the problem.

Swimming

Unlike most of its neighbors to the north and south, Pennsylvania does not border on the Atlantic Ocean. Nevertheless, more activity days were spent or included swimming than any other activity except bicycling, and eighty-eight percent of those who did swim did so in Pennsylvania. In fact, estimates indicate that out-of-state visitors used Pennsylvania's swimming facilities far more than Pennsylvanians used the facilities of other states.

In 1974, sixty-nine percent of the population went swimming at least once. Three-quarters of those who swam used a facility within a half hour of their home,

and half used a private facility, that is, a backyard pool or club. Thirty-seven percent swam at a public place of which about a quarter were State-owned and about two-thirds were owned by local or county governments.

Results of the demand survey imply that public facilities are overcrowded. When asked whether they were "bothered" or "inconvenienced" by crowded conditions, one out of every four responded affirmatively. Since private owners by the very nature of their authority to exclude would be less likely to permit conditions which "inconvenience", it can be assumed that most of the complaints applied to public facilities, which means there is currently a significant deficiency in supply.

Demographic growth participation projections indicate that by 1990 swimming demand will increase by at least twenty percent. However, swimming has several special characteristics which modify the usual relationship between supply and demand and magnify its potential for growth. Unlike many outdoor recreation activities, swimming participation is not necessarily curtailed drastically by loss of youth or even by advancing years. So, while the expected increase in the average age of Pennsylvanians may affect the overall percentage of those who need starting blocks for the 100-yard dash, it will not be a negative factor in anticipating demand for swimming facilities. In the next two decades supply will influence demand more than the inverse. If enough areas for swimming are provided, it is estimated that the increase in total activity days by 1990 will be in the neighborhood of forty-seven percent.

Boating, Canoeing, and Water Skiing

By 1990 the activity days devoted to these kinds of water recreation are expected to be nearly double that of the current total of 32 million. In 1974, thirty-four percent participated in some kind of boating activity averaging three outings per person. Seventy percent of the boating was done in Pennsylvania.

Of the boaters questioned in the demand survey, twenty-one percent stated that on their last outing they had used a canoe or raft. Among other things, this statistic could indicate a significant demand or potential demand for white water opportunities. The success of private concessions on the Youghiogheny River in Fayette County, and on Pine Creek in Tioga County, are further indications of the growing popularity of canoeing and rafting.

Since the Commonwealth is the legal owner of the water of all navigable streams, facilities attractive to white water enthusiasts could be provided without expensive acquisition costs. Such areas should be identified, easements acquired, access and departure points provided, and shorelines protected. Identification and studies of wild and scenic river sections is currently being done as part of both Federal and State Wild and Scenic Rivers program.

While increased supply will undoubtedly increase the number of white water participants, an analysis has demonstrated that the incidence of boating done at lakes or reservoirs would not increase by providing more impoundments. However, this analysis, based on miles of streams and rivers and acres of lakes suitable for boating, did not take into account the number and relative location of access points. Therefore, emphasis should be directed to determining the extent to which and where additional access areas are needed and, subsequently, to providing them. Placement should also take into account factors which affect fishing.

Based on observations of user patterns at State parks and U.S. Army Corps of Engineers' reservoirs, it would appear that sailboating is growing dramatically in popularity. Since sailboats are more vulnerable than other watercrafts when left overnight, mooring docks at or near access points should provide protective facilities.

Fishing

The major issue concerning fishing demand in Pennsylvania is water quality. Over 5,000 miles of streams will not support game fish and an undetermined number of stream and river miles provide fishing which can only be described as unrewarding. Projects providing small impoundments with stocked fish which are certainly needed in urban areas would not be necessary if the nearby rivers and streams were not foaming with industrial waste.

Nevertheless, fishing is a popular sport in Pennsylvania, and there are many places where fishing is excellent. In 1974, three and a half million people went fishing (eighty-seven percent within the State) on the average of 14.8 times per fisherman. Fishing participation, which is not expected to expand beyond the population and demographic growth rates, should increase by about 19 million activity days in the next fifteen years and include about two-fifths of the population.

Next to improving water quality, the most significant need of fishermen is more access areas to streams and rivers where fishing is good. Installation priorities should be determined by proximity to population centers. Another resource for fishing near population centers is municipal reservoirs, many of which in the past have been closed to public use.

Including its cooperative fisheries, the State is raising about 4.7 million trout to adult size annually, 800,000 salmon smolt and fry, and 44 million warmwater fish, which are stocked as fry and fingerlings. While trout is the most sought after single type of fish, overall, fishing opportunity and recreational rewards for the many

species of warmwater fish, which generally have self-sustaining populations, far exceed that of trout.

Hunting and Sport Shooting

The primary concern of the hunter is that the game habitat be preserved. In this respect his interest is akin to the naturalist, the conservationist, and the game.

Pennsylvania is an excellent state for hunting. Like all other "natural resource" based recreation activities, the major problems emerge directly from the fly-like reproduction rate of concrete and cement, which is to say that hunting is not as good in the Philadelphia and Pittsburgh areas as it is in, say, Sullivan County. The major hunting need in Pennsylvania, therefore, is the acquisition of untrammelled tracts of land in the periphery of these metropolitan areas.

Another problem affecting the quality of hunting in Pennsylvania has been the proliferation of posted land by the private owner. In 1974, almost two-thirds of the survey respondents who hunted, hunted on private property. This problem is most acute in the northeastern tip (Pocono area) of the Commonwealth where commercial interests have acquired much of the land.

The participation rate in hunting is expected to be stable, increasing from 23 million activity days in 1974 to 32.6 million in 1990. Currently, there are a million and a half hunters in Pennsylvania of whom very few (three percent) leave the State to hunt or encounter overcrowded conditions (two percent).

Sport shooting facilities in the past have been supplied primarily by private clubs, and this plan affirms the continuation of this arrangement with some state supplements where game lands are naturally predisposed to this activity.

Horseback Riding

In terms of activity days, participation in horseback riding is expected to triple by 1990. In 1974, 11.2 percent of the population went horseback riding, averaging eighteen occasions per rider. These figures are expected to increase to 23.9 percent and 21.8 occasions in the next 15 years. One of the major factors which will influence growth is the high percentage (16.1 percent) of non-participants who expressed a desire to become one.

Horseback riding is not a weekend activity (64 percent rode on weekdays), is generally done on private property (seventy-three percent) or at commercial establishments (23.6 percent), is frequently an all-day activity (twenty-five percent made a day of it), and is enjoyed by an equal number of men and women. Women, however, go riding twice as frequently (22 days to 11) as men.

It is expected that growth in horseback riding participation will increase in proportion to increases in supply, that is, horses available for riding, stables in which to keep them, and trails on which to ride them. The demand survey indicates that the Pittsburgh and Philadelphia areas, where supply is least adequate, could easily support two to three times the existing number of commercial riding establishments.

The Commonwealth does not directly supply horseback riding facilities. However, concessions have been operating at several State parks. As suitable concessions emerge, there is no reason why this practice should not be extended. To this end, the State should cooperate in the development of riding trails at these areas.

Tennis

During the past decade tennis has been one of Pennsylvania's fastest growing sports. One result of this explosion in popularity has been the existing courts have not been able to facilitate everyone who wants to play tennis. Nor has construction of new courts alleviated the shortage significantly. According to the demand survey, forty-six percent of the respondents complained of overcrowded conditions.

Since tennis is expected to continue to increase in popularity (from twenty-nine percent of the population in 1974 to more than forty-five percent in 1990) major emphasis should be placed on building new courts at neighborhood schools, community and neighborhood parks, or wherever flat open space is not being utilized constructively. Aside from the demographic and population related growth factors, tennis participation is expected to continue its rapid growth pattern because it is a sport that usually can be played close to home (eighty-six percent lived within 15 minutes of a tennis court), requires only one other person to play, requires very little equipment and can be learned and enjoyed by active people of all ages. Eleven and a half percent of those who did not play in 1974 would like to. By 1990 total activity days are expected to increase from the current 69 million to 121 million.

Part of the need for tennis facilities will undoubtedly be met by commercial indoor playing areas. However, it is envisioned that the major need will be for public outdoor courts.

At this time most of the growth in tennis participation has been in and around the Commonwealth's population centers. This could indicate an even more severe lack of tennis courts in rural areas. However, the most immediate and pressing need appears to be in urban areas.

Basketball, Baseball and Football

Participation in these three sports is the steady diet of most athletic youngsters. Almost all scholastic, collegiate, municipal, or county recreation programs provide structured opportunities for competitive participa-

tion and almost every school yard or playground has basketball courts and a ball field.

Since participation rates in these sports are expected to remain constant in the next 15 years, this plan would suggest that maintenance of existing facilities is more important than construction of new facilities in communities which will be experiencing average population changes.

	1974			1990		
	Activity Days (Million)	Percent Participating	Times per Participant	Activity Days (Million)	Percent Participating	Times per Participant
Basketball	97	22.4	39	111	24.0	36
Baseball	87	32.0	24	100	34.0	24
Football	38	17.0	20	46	19.7	19

One factor which may alter participation projections, however, has been the recent upsurgence of enthusiasm for these team sports among girls and young women. For example, the demand survey indicated that 30.5 percent of female non-participants in basketball said they would like to play. If female participation rates in these sports approach or equal male rates, which is certainly conceivable, and leagues are formed and facilities reserved, then there could be a significant need for more basketball courts and ball fields.

Street Hockey

Street hockey, it would seem, has emerged primarily in Philadelphia and Pittsburgh in direct response to the success of those cities' National Hockey League franchises. Since spectator attention to ice hockey is as of recent vintage as the franchises, and since the weather of those cities is not cold enough long enough to have engendered a climatic need for a game played on ice, youngsters with hockey sticks have taken to the streets to emulate their heroes in simulated macadam rinks in sneakers rather than skates.

In 1974, five percent of the population spent 12.5 million activity days playing street hockey. Those who played played frequently, averaging 23 days per participant. By 1980, however, participation is expected to mushroom to 50 million activity days and include twenty percent of the population. By 1990, it is expected that street hockey, or its equivalent, will account for 70 million activity days.

The question of the facilities needed to accommodate this kind of expansion is somewhat of a paradox. Street hockey is called street hockey because it is played in the street. And certainly, heretofore, this has contributed to much of its attractiveness to youngsters. As a new game played in unspecified areas, informally, street hockey has given youngsters something in which they can direct their innovativeness, a sport in which they can determine their own boundaries and make their own rules.

As street hockey increases in popularity, it will be removed from the streets because the passage of traffic, not hockey, is their primary function. It is doubtful that basketball and tennis players will relinquish their facilities which would be quite adequate for street hockey players. Empty parking lots would also suffice, but where would people park their cars? And there are always grassy areas like football or soccer fields, but that would become too much like field hockey. Therefore, eventually specifically designated facilities will have to be provided for street hockey in response to increases in participation. It is the position of this plan that the technical design and provision of facilities for this sport can best be handled by local recreation experts.

Golf and Miniature Golf

Golf is another activity whose growth will be dependent, to a large extent, on increases in the supply of facilities. In 1974, thirty-two percent of Pennsylvania's population participated in some form of golfing activity, but it is estimated that a forty percent increase in supply (that is, golf holes per county) would result in at least a 120 percent increase in total activity days (46 million in 1974). However, an increase to 67 million involving forty-three percent of the population by 1990 is more realistic.

Golf is a relatively expensive sport and so is highly sensitive to increases in real income. It is also a sport which is participated in mostly by adults[1]. The 45-64 age group has the highest rate of activity days per capita (five) demonstrating that the population trends which indicate a general increase in the average age of Pennsylvanians will probably enlarge golfing needs.

According to the demand survey, the supply of golfing facilities is currently insufficient. Twenty-five percent said they were inconvenienced by overcrowded conditions the last time they played. Since the private profit and non-profit sectors are the major suppliers of golf courses, driving ranges and miniature golf courses, future demand, to a large extent, may or may not be

[1]It is assumed that participation rates among youngsters reflect, for the most part, participation in miniature golf, which does not require equipment and is comparatively inexpensive.

satisfied by their response to what they perceive to be market conditions. The State, which has not been in the business of building and operating golf courses, will help to reduce needs by encouraging private enterprises. The State will also cooperate with county and municipal officials in the development of local park resources which, to a limited extent, have included and in the future might include golf courses.

Camping

Camping is an activity in which participation rates should remain constant and for which present supply is more than adequate. Currently there are about 53,000 camping sites within the Commonwealth of which 7,000 are a part of the State park system. Use of the latter facilities indicates growth rates which will be stable and accommodable.

In 1974, twenty-six percent of Pennsylvania's population went camping for a total of 32 million activity days. By 1990, thirty-seven percent of the population should be involved in camping accounting for approximately 50 million activity days. This increase reflects general population increases.

However, three factors may alter population related projections. 1.) Camping participation is directly related to financial security. Consequently, as Pennsylvanians' real income increases, as is projected, camping popularity could rise. 2.) Heretofore, camping, for the most part, for whatever reasons, has excluded non-whites. In 1974 Pennsylvania's white population camped an average of three days per person, while non-whites on the average went camping less than three quarters of an activity day per person. Since 311 percent of the non-white sector who had not been camping expressed an interest in doing so, it is quite possible that increasing non-white participation could significantly amplify demand. 3.) It is likely that fuel costs will increase in coming years. Since many Pennsylvanians have been leaving the State for camping vacations, these expected increased travel expenses could result in closer destinations, destinations within Pennsylvania. This factor could apply also to residents of the greater New York area who would also limit their vacations to camping areas closer to home.

Since the relationship between supply and demand of camping facilities is dependent, to a large degree, on factors which cannot be measured or projected, this plan suggests that careful monitoring is necessary to ensure the preservation of the existing relationship.

Snow Skiing

Because of Pennsylvania's temperate climate, snow skiing is largely dependent on artificial devices and commercial enterprises. Consequently, it is a relatively expensive activity (very few people with incomes under $7,000 participate) which is enjoyed by a small percentage (5.7 percent) of the population. Growth rates will be dependent not only on increases in commercial supply but on location. Forty-four percent of the skiers stated they would ski more often if slopes were situated within half the distance they are currently required to travel.

Growth projections forecast at least a one hundred percent increase in participation by 1990. In fifteen years, sixteen percent of the population is expected to devote 7.6 million activity days to skiing. In 1974, 3.8 million days were spent on the slopes.

Ice Skating

Like snow skiing, growth in participation rates in ice skating, because of the climate, will depend on increased use of artificial processes in providing the necessary facilities—in this case, ice. However, unlike skiing, increased participation will not just reflect increases in commercial profit-making skating rinks. Rather, it would appear that there is a great need for municipally or county operated facilities which charge nominal operation fees.

In 1974, twenty-two percent of the State's population ice skated an average of 8.5 times per person or 21 million activity days. By 1990, it is expected that twenty-nine percent of the population will be skating about 28 million activity days.

However, these figures do not take into account the potential impact of ice hockey on the market. As has been seen, the popularity of street hockey is expected to increase dramatically in coming years. It certainly makes sense that a percentage of these participants will discard their sneakers for skates if the opportunity is available. Since this need is exclusively a need of youngsters, it will have to be met by facilities which can be made available at little cost to the participant. Consequently, this plan foresees a need which will have to be dealt with by State, county, and local officials and agencies as well as by privately sponsored and organized leagues.

To meet more general needs, this plan recognizes a need at the state level for greater emphasis on ice skating in the recreation programming at State parks and forests.

Hiking and Nature Walks

Although hiking and nature walking are kindred activities, their respective needs are quite distinct. While hiking is dependent on trail systems in wooded areas, nature walking needs are directly related to the degree of urbanization and attendant open space deficiencies.

According to the demand survey, only forty percent of Pennsylvania's population went hiking or for a nature walk. Since it is estimated that one-fifth to one-quarter

of this figure is representative of the hiking group, nature walking involves only about a third of the population, and since it is assumed that any walk in a rural area involves some degree of enjoyment of the natural environment, the urban and suburban non-participation rates become more significant.

Providing or preserving areas conducive to nature walking by developing riverfronts or by acquiring wooded lots in residential sections, for example, will solve only part of the problem. Air pollution must also be abated. It has become a rare thing to see a butterfly even in semi-urbanized areas.

Hiking is a less casual activity, involves a much smaller percentage of the population, and will only survive in its present form if natural areas are preserved. At the present time there does not appear to be a deficiency in trails or areas attractive to hikers. However, since hiking is dependent on unbroken, undisturbed passages, future development, if unchecked, could checkerboard existing woodland expanses thereby curtailing drastically the creation of future trail systems. Therefore, there is a current need at the state level to identify trail networks and to coordinate preservation and development efforts with local government officials and private land owners. If this kind of coordination can be achieved, there does not appear to be a need for a costly acquisition program.

Snowmobiling, Off-Road Motorcycling and All-Terrain Vehicling

At the present time these activities involve a relatively small percentage of the population (twelve percent) and are generally accommodated on private facilities (sixty percent). The participation rate is expected to increase to about twenty percent by 1990.

Like hiking, these activities require trails or meadows in relatively undisturbed areas. Unlike hiking, however, the presence of these recreationists, because of the noise of their machines, shatters the silence which is an important part of the outdoor experience of almost anyone who is not an off-the-road motor vehicle recreationist. The inevitable conflict of values has occurred.

Nevertheless, off-the-road vehicling needs are much the same as those of hikers—trails need to be designated, developed, and maintained. Since the private sector fulfills the greater part of current needs, their energy should be directed toward petitioning for rights-of-way on private land, developing new trails and expanding existing ones, and publicizing their facilities. As part of its policy to maximize utilization of State park and open space land, the State should continue to provide specific areas for these needs and, as part of its general recreation policy, to work with any club or organization interested in providing cross country trails which involve passage through State owned land.

B-regional needs

REGIONAL NEEDS

Introduction

In the preceding section, "Statewide Facility Needs", the need for facilities for each of the nineteen activities on which this plan focuses were analyzed. Although these analyses include general observations regarding the kinds of areas (i.e., urban or rural, for example) where needs for certain facilities are particularly acute, they do not include regional detail.

This section was intended to provide that detail, but the results of the survey which was conducted to supply that information demonstrated that regional needs are pretty much the same throughout the State. Consequently, while the detail has been compiled, it has little significance beyond confirming what was stated in the preceding section.

The survey, an opinion questionnaire, was conducted in July and August of 1974 by the Pennsylvania Office of State Planning and Development in cooperation with the regional and county planning agencies. In each region, 1,200 questionnaires were distributed to individuals who have a professional or civic interest in or a responsibility for the planning or provision of recreation facilities and services at the local or regional level. Mailing lists were developed by the regional planning agencies from lists of local government officials, professional organizations, civic and special interest groups, minority groups, and public and private recreation providers.

As an opinion survey, the responses to the questions reflect what the respondents *think* are the major facility needs in their respective regions. In all, 4,919 questionnaires were returned for tabulation.

TABLE 1

DISTRIBUTION OF QUESTIONNAIRES

CATEGORIES OF RESPONDENTS	%	QUESTIONNAIRES Totals
Local Government	37%	1820
State/Federal Government	8%	414
Environmental Conservation Group	8%	394
Recreation Provider — Government	7%	327
Recreation Provider—Private	5%	230
Recreation User Group	6%	290
Civic Group	7%	334
Special Advocate Group	7%	373
Social Club or Group	3%	162
Other	12%	575
Totals	100%	4919

RESULTS OF THE OPINION SURVEY

Facility Needs

The first section of the questionnaire instructed respondents to rank the kinds of recreation facilities which are needed in their region in order of the degree of need. Statewide, the ten most needed are:

1. Bicycle paths
2. Tennis courts
3. Swimming pools
4. Ice skating areas
5. Playgrounds
6. Hiking or walking trails
7. Off-the-road recreation vehicle trails
8. Ballfields
9. Picnic areas
10. Natural swimming areas

Table 2 lists the priorities for facilities as tabulated for each of the ten regions and Charts 1 through 10 illustrate the percentage of respondents in each region who indicated that these facilities are most needed.

Bicycle Paths

By referring to Table 2 it can be seen that bicycle paths are regarded as the most needed facilities in five regions and as second, third, or fourth most needed in the other five regions. All of the five regions which ranked bicycle paths first have at least one major metropolitan center and the regions (7 & 8) which ranked this need comparatively lower (fourth) are two of the three most sparsely populated regions in the State. However, in that no region ranked it lower than fourth indicates that the need is general. As has been seen in the Statewide Facilities Needs section, more activity days are spent bicycling than in any other activity.

Tennis Courts and Swimming Pools

Both tennis courts and swimming pools are ranked among the three most needed kinds of facilities in all but one region each. Here again, the need is statewide and the responses of this survey reinforce the findings of the Statewide Facilities Needs section: an adequate supply of swimming facilities would result in a projected forty-seven percent increase in participation by 1990, while forty-six percent of those who play tennis were inconvenienced by overcrowded conditions.

Ice Skating Areas

Like tennis courts and bicycle paths, the great need for ice skating areas is a phenomenon of the past three or four years. Demand is expected to continue to increase. The need for ice skating areas is ranked second in the largely rural North Central Region and third in the metropolitan Lehigh-Northampton County area, and is not ranked lower than sixth in any region except the Northern Tier.

Playgrounds

Playgrounds are ranked as the third or fourth most needed recreation facilities in six regions. Five of these regions have at least one metropolitan area, including the Pittsburgh and Philadelphia areas, and one, the Northern Tier, is predominately rural.

Others—Priorities Six through Ten

The overall uniformity of the regional needs priorities is further demonstrated in that only in seven cases are facility needs other than the above ranked among the five most important. Hiking and walking trails accounted for three of these (ranking fourth in Regions 2 and 6 and fifth in Region 5), while natural swim-

TABLE 2

REGIONAL PRIORITIES OF FACILITIES

No.	Region 1	Region 2	Region 3	Region 4	Region 5
1	Bicycle Paths	Bicycle Paths	Swimming Pools	Tennis Courts	Bicycle Paths
2	Swimming Pools	Tennis Courts	Tennis Courts	Bicycle Paths	Swimming Pools
3	Tennis Courts	Ice Skating Areas	Bicycle Paths	Swimming Pools	Playgrounds
4	Playgrounds	H W Trails[1]	Playgrounds	Playgrounds	Tennis Courts
5	Ice Skating Areas	Swimming Pools	Ice Skating Areas	N S Areas[2]	H W Areas[1]
6	Ballfields	Playgrounds	Ballfields	*ORV Trails	Ice Skating Areas
7	H W Trails[1]	Picnic Areas	H W Trails[1]	*H W Trails[1]	ORV Trails
8	P S Areas[3]	P S Areas[3]	P S Areas[3]	Picnic Areas	N S Areas[2]
9	Picnic Areas	*Ballfields	Picnic Areas	Ice Skating Areas	Picnic Areas
10	ORV Trails	*N S Areas[2]	ORV Trails	Museum	Ballfields

No.	Region 6	Region 7	Region 8	Region 9	Region 10
1	Bicycle Paths	Swimming Pools	Swimming Pools	Bicycle Paths	Tennis Courts
2	Tennis Courts	Tennis Courts	Ice Skating Areas	Tennis Courts	Bicycle Paths
3	Swimming Pools	Playgrounds	Tennis Courts	Swimming Pools	Playgrounds
4	H W Trails[1]	Bicycle Paths	Bicycle Paths	Ice Skating Areas	Swimming Pools
5	Ice Skating Areas	Ice Skating Areas	Snow Ski Areas	ORV Trails	*Ballfields
6	Playgrounds	ORV Trails	ORV Trails	Playgrounds	*Ice Skating Areas
7	Picnic Areas	Ballfields	N S Areas[2]	H W Trails[1]	H W Trails[1]
8	P S Areas[3]	Picnic Areas	Ballfields	Ballfields	Picnic Areas
9	ORV Trails	H W Trails[1]	Picnic Areas	*Boat Launch Areas	ORV Trails
10	Ballfields	P S Areas[3]	H W Trails[1]	*Museum	P S Areas[3]

* Received the same percentage of responses
1 Hiking Walking Trails
2 Natural Swimming Areas
3 Passive Sitting Areas

ming areas (Region 4), snow-skiing areas (Region 8), off-the-road motor vehicle trails (Region 9) and ballfields (Region 10) accounted for the rest, ranking fifth in each case. Priorities six through ten are listed by region in Table 2.

Condition of Facilities

The remaining sections of the questionnaire deal with specific aspects and issues pertaining to regional recreational needs. The first question of this section instructed respondents to classify the different kinds of recreation facilities as satisfactory, dirty, crowded, too expensive, too far away, or non-existent. This question was, in part, a check to see if respondents who said they need more facilities are aware of the facilities that already exist in their respective areas. Results indicate that they are.

Eighty-four percent of the respondents classify bicycle paths, the most needed facility of the first section, as non-existent. Tennis courts, the second most needed facility, are described by fifty percent as crowded and by twenty-seven percent as non-existent. These percentages are fairly uniform throughout the State. (See Table 3)

Respondents also reaffirmed the need for more swimming pools and ice skating areas. Twenty-eight percent state that swimming pools are crowded and twenty-two percent state they are non-existent. In the regional summaries these percentages are especially high in Regions 3, 7 and 8 where swimming pools are ranked as the most needed kind of facility.

Ice skating areas are indicated as being non-existent by forty-three percent, while fifteen percent state the existing ones are overcrowded. Those regions (2, 3, 7, 8, 9, and 10) that rank the need for ice skating areas most highly also have the highest percentage of the non-existent responses. Region 2 has the highest percentage of respondents who state that existing ice skating facilities are overcrowded.

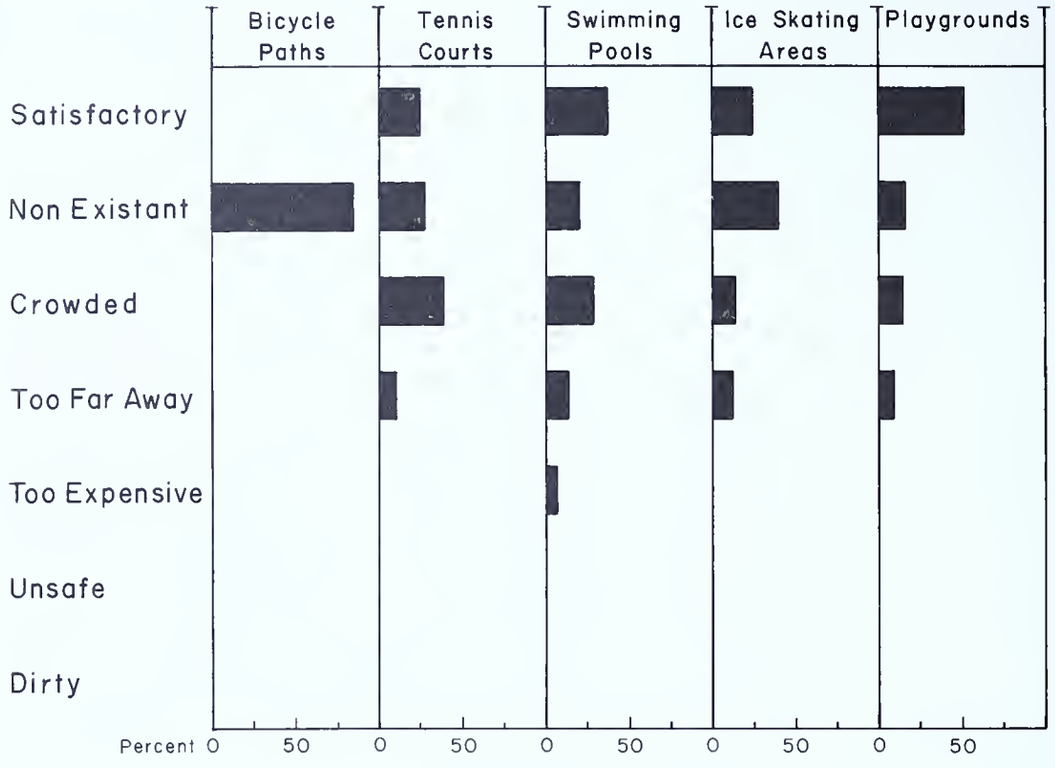
Although playgrounds are ranked as the fifth most needed facility, fifty-four percent describe existing playgrounds as satisfactory. This figure is fairly constant in all regions, although in Region 1 twenty-two percent feel that playgrounds are crowded and in Regions 4, 7 and 10 twenty-four to thirty-six percent state that playgrounds are non-existent.

Hiking and walking trails are generally felt to be either non-existent or satisfactory. Since there are over eight thousand miles of hiking trails throughout Pennsylvania, this could indicate either that a large portion of the population is poorly informed about where trails are located or that trails are not located conveniently enough.

Sixty-seven percent of the respondents feel that off-

EVALUATION OF EXISTING RECREATION FACILITIES

TABLE 3



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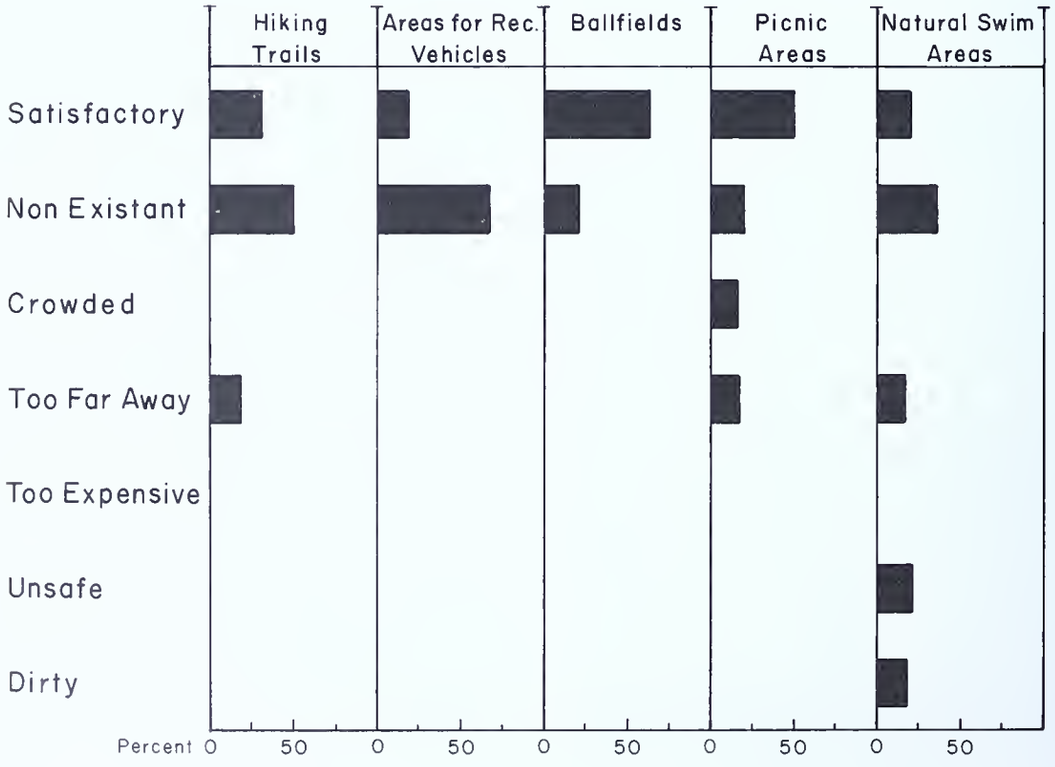
EVALUATION OF EXISTING RECREATION FACILITIES

TABLE 3



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road recreational vehicle use areas are non-existent, although in the more rural regions (4, 5, 8, and 9) twenty-three percent or more rate these areas as satisfactory.

Ballfields are rated as satisfactory by sixty-three percent of the respondents, but as crowded by twenty-three percent. These percentages are consistent throughout the State except in Regions 4 and 5 where less than fifteen percent in each describe ballfields as crowded.

In Regions 1, 3, 4, 6, 7 and 10 twenty-one to thirty-one percent of the respondents classify picnic areas as non-existent and in Regions 7 and 8 facilities are thought to be too far away by twenty-one and twenty-seven percent, respectively. However, statewide, picnic areas are rated as satisfactory by half of the survey sample.

Although natural swimming areas are ranked only tenth in the priorities established in the first section of the questionnaire, respondents indicated they are relatively unsatisfied with existing facilities. Except for Region 9, all of the regions have a high percentage of respondents who classify natural swimming areas as non-existent (from a high of fifty-nine percent in Region 1 to twenty-one percent in Region 8). Only in five regions (3, 4, 5, 8 and 9) do more than twenty percent of the respondents feel that natural swimming areas are satisfactory. In Regions 4, 5, 6, 7, 8 and 9 eighteen to twenty-four percent of the respondents feel that natural swimming areas are unsafe and in Regions 5, 6 and 7 more than twenty percent of the respondents feel they are dirty.

Priorities for Recreational Expenditures

This question asked respondents to decide which kinds of recreational expenses should be given highest priority. In every region, acquisition and development of new recreation facilities are given highest priority. However, responses for second priority are divided evenly between maintenance and programming. The majority of the respondents in Regions 1, 6, 7 and 10 feel that programming is more important while maintenance has the highest percentage in Regions 2, 4 and 5. Regions 3, 8 and 9 feel that both are of equal importance.

Supply of Developed Recreation Areas and Open Space

The intent of this question was to ascertain if the present level of recreational development and open space is sufficient to accommodate present levels of demand. It was found that this question was confusing because no differentiation was made between open space and developed recreational areas. Although sixty-one percent of the respondents in the statewide tabulation stated there is not enough recreational development and open space, review of the handwritten notes attached to this question indicates that a large percentage of the respondents feel there is enough open space in their region, but that more developed recreation areas are needed.

Publicly Supported Transportation to Distant Recreation Areas

With the exceptions of Region 2, where such a program already exists, and Region 1, use of mass transit for transportation to outlying recreation areas is not considered to be a very important priority. It will probably remain a low priority until the fuel shortage becomes a fuel absence.

Facilities for the Handicapped

Sixty-three percent of the respondents feel that existing facilities are inadequate for use by the handicapped. It is felt that facilities lack essential special equipment and that communities have been negligent in providing programs in which the handicapped can participate.

Facilities for the Elderly

Except for Region 8, where forty-two percent of the respondents thought that the elderly are being taken care of, the responses to this question parallel those of the preceding question. Inadequate transportation is also suggested as a major problem for the elderly.

Community Use of School Facilities

Because recreation facilities are locked up after school hours and because, in part, supervision for after school use has not been supplied, the majority of respondents (60%) do not feel school facilities are used to meet as much of the community recreational demand as is possible.

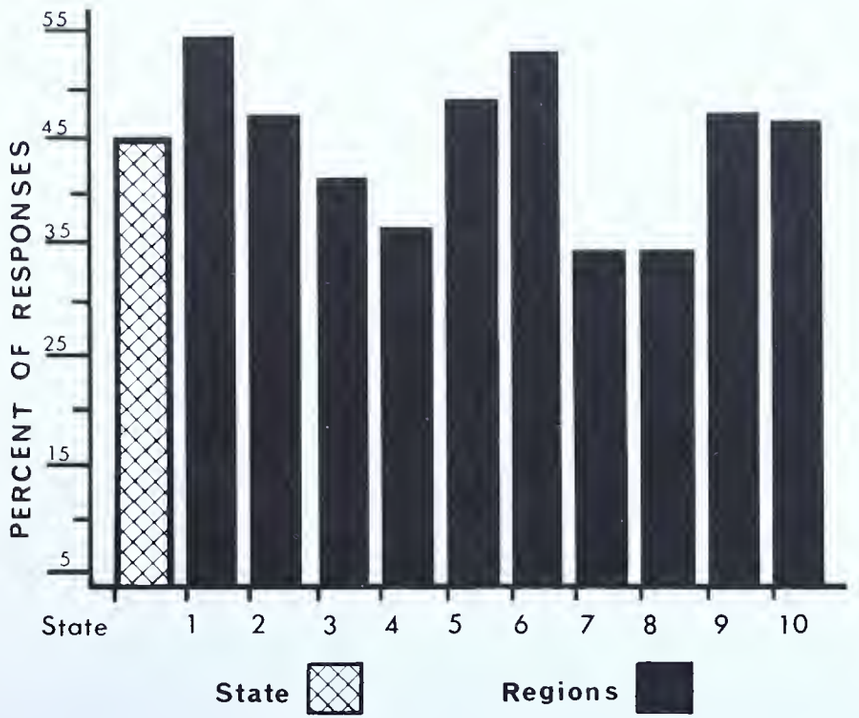
Tax and/or Fee Supported Public Recreation

In this question respondents were asked whether the cost of the development and maintenance of publicly-owned recreation facilities should be paid for by taxes, user fees, or a combination of both. Tabulation of the results shows that an overwhelming majority of the respondents (seventy-four percent) feel that a combination of user fees and tax support is preferable. This is a clear indication that, to a certain degree, recreation facilities, services and programs should be self-sustaining.

Regional and State Needs For

CHART 1

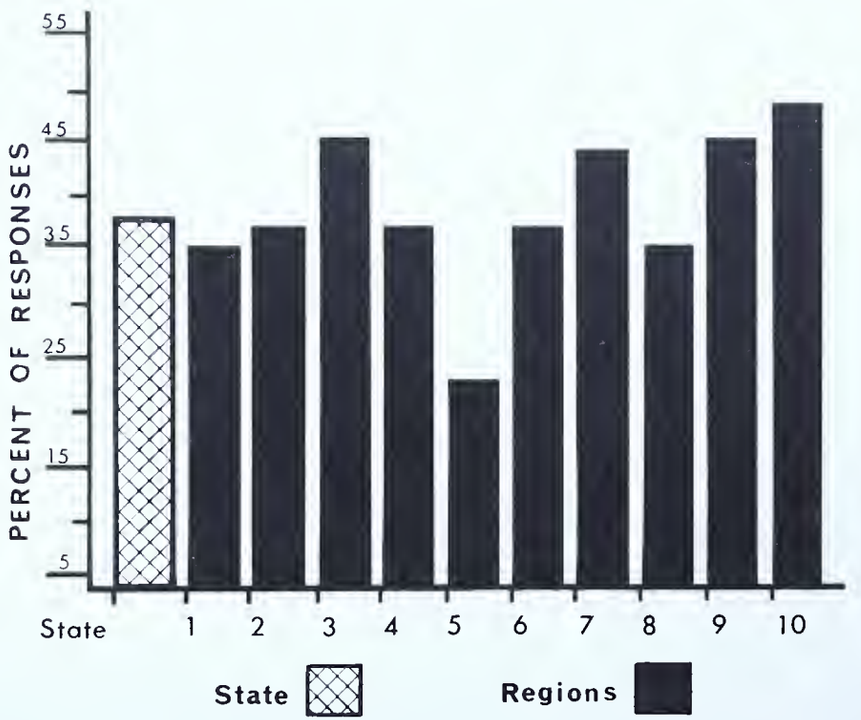
BICYCLE PATHS



Regional and State Needs For

CHART 2

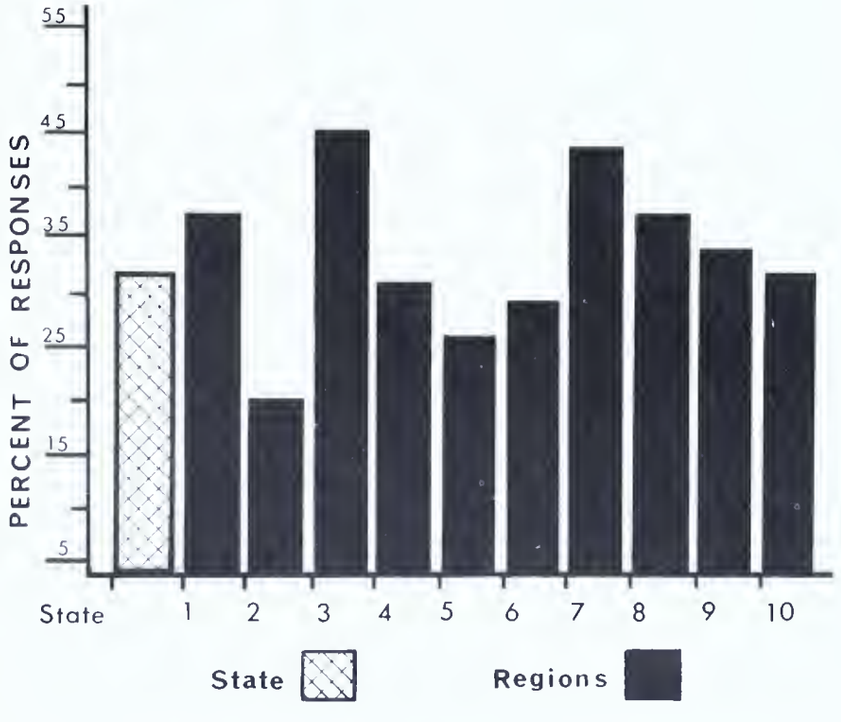
TENNIS COURTS



Regional and State Needs For

CHART 3

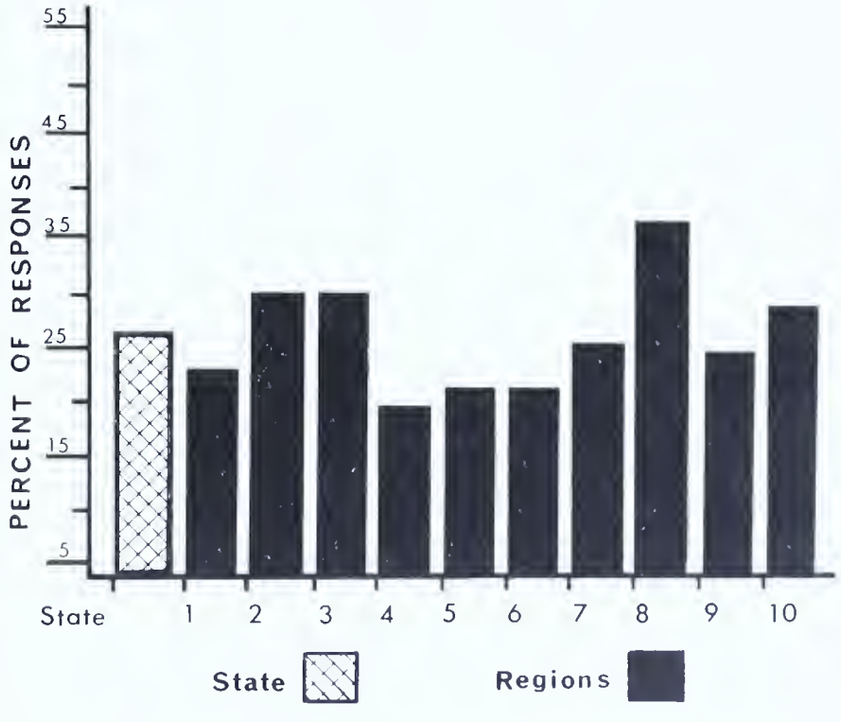
SWIMMING POOLS



Regional and State Needs For

CHART 4

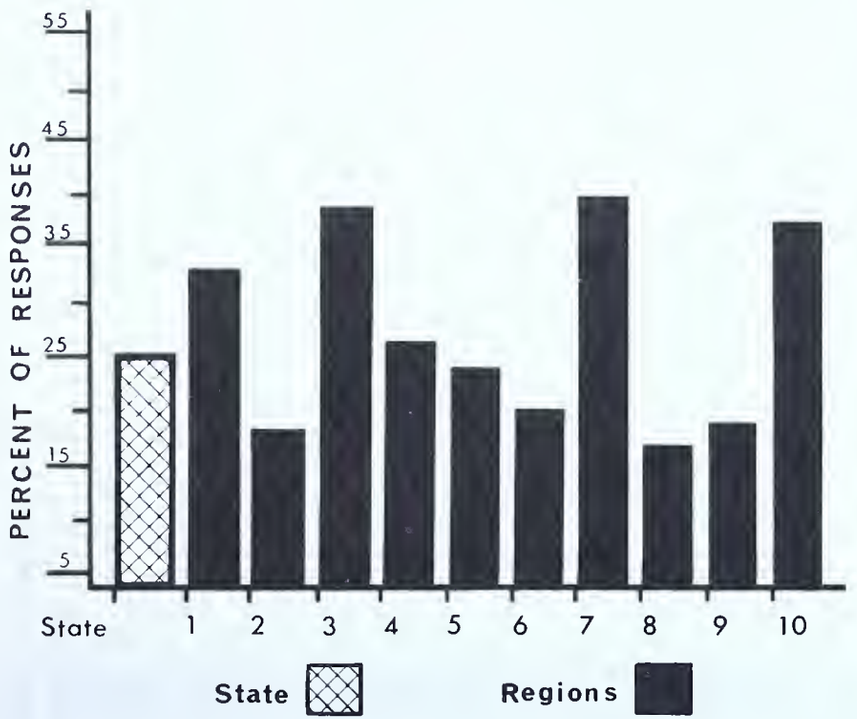
ICE SKATING AREAS



Regional and State Needs For

CHART 5

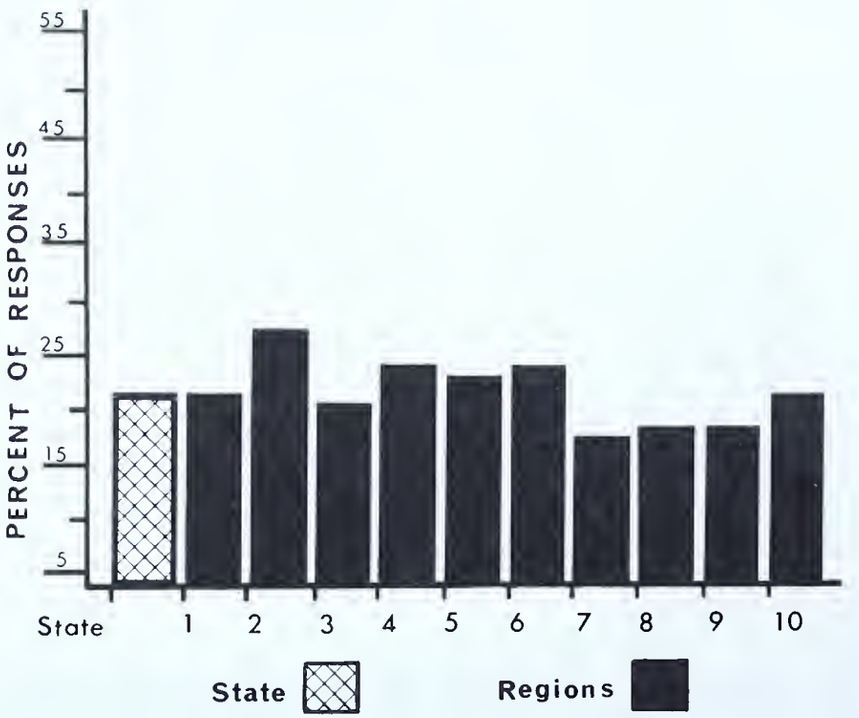
PLAYGROUNDS



Regional and State Needs For

CHART 6

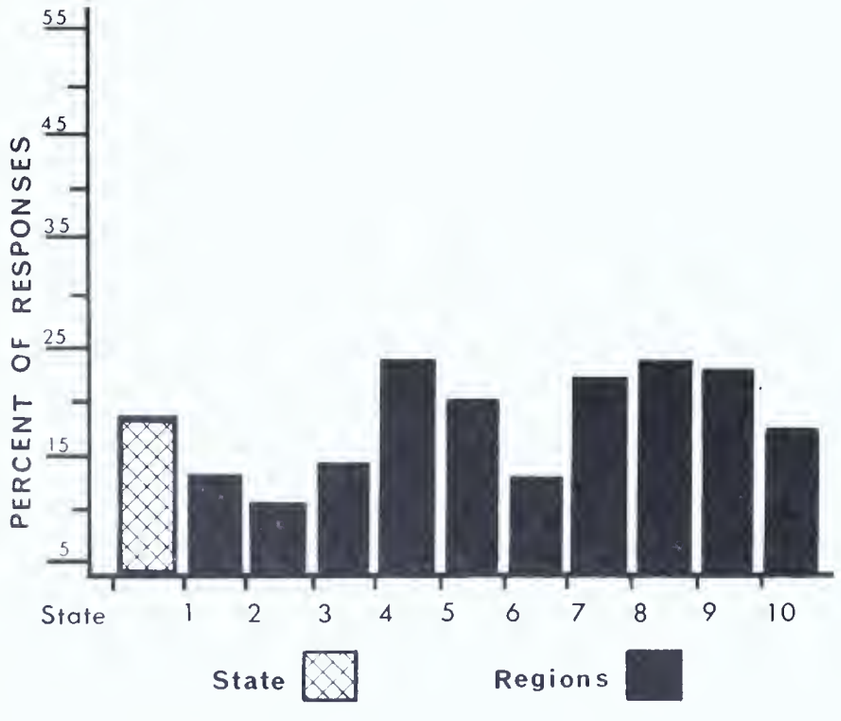
HIKING/ WALKING TRAILS



Regional and State Needs For

CHART 7

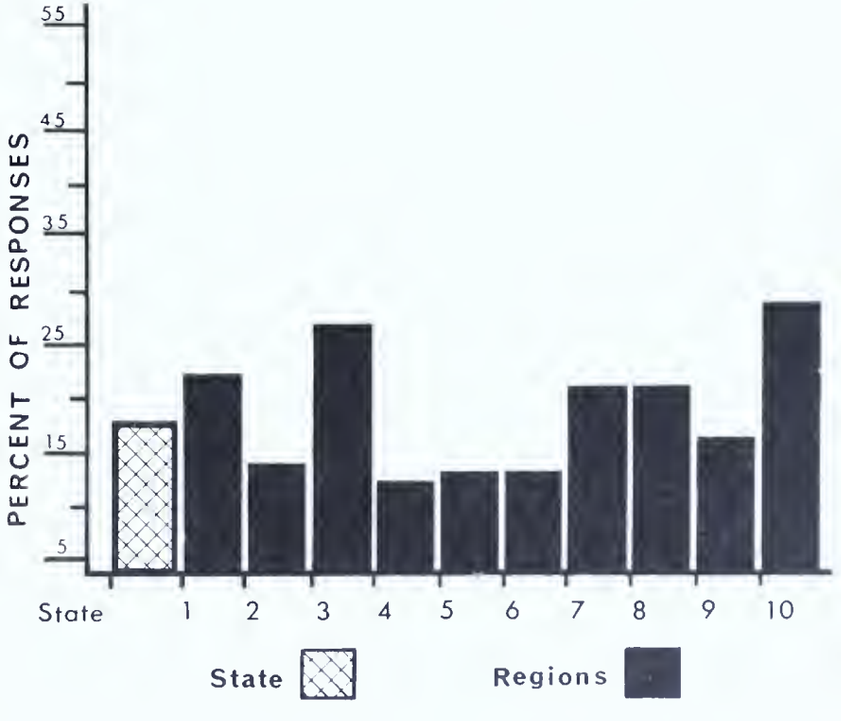
ORV TRAILS



Regional and State Needs For

CHART 8

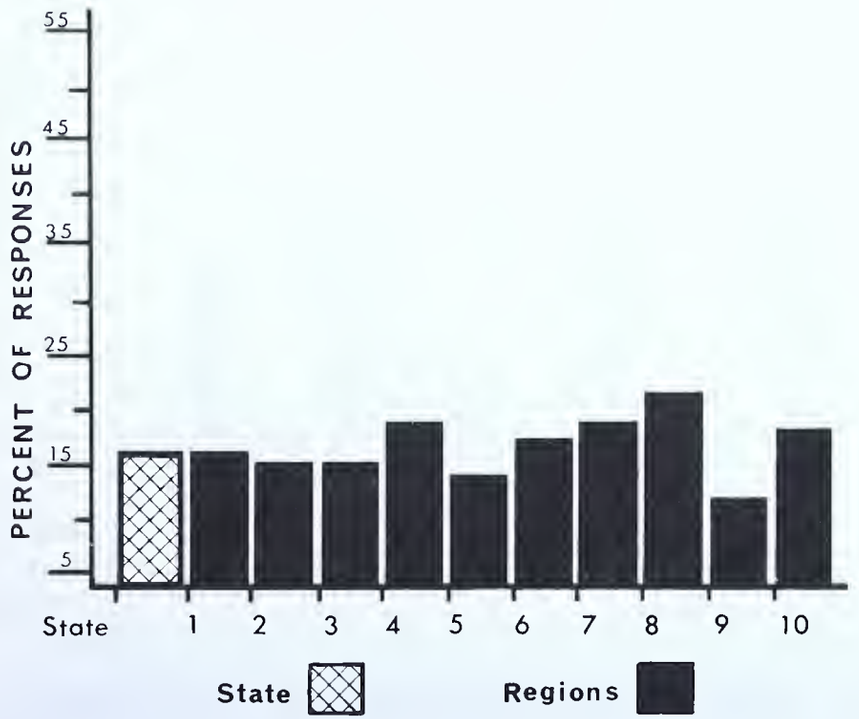
BALLFIELDS



Regional and State Needs For

CHART 9

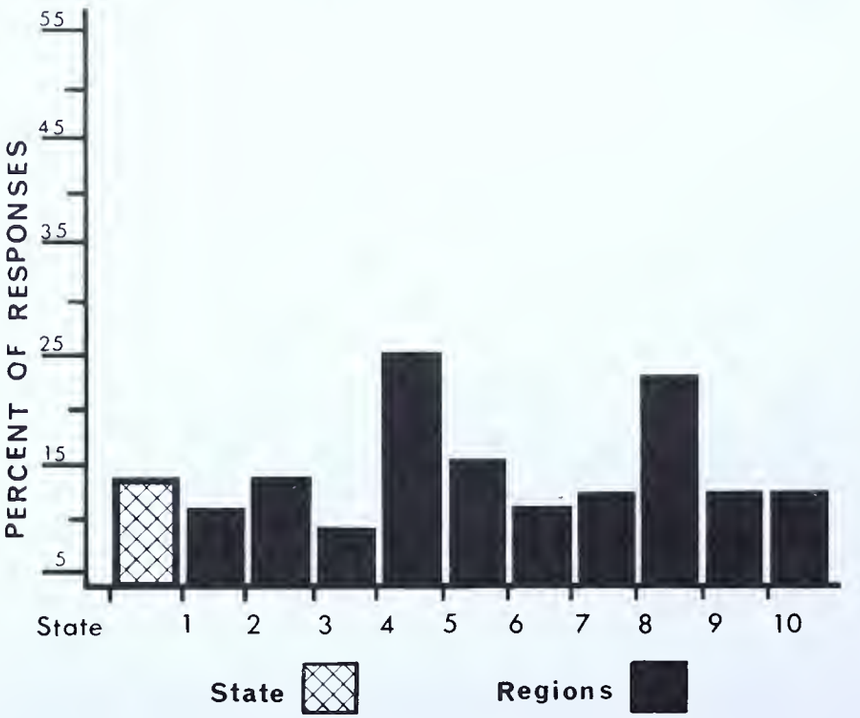
PICNIC AREAS



Regional and State Needs For

CHART 10

NATURAL SWIMMING AREAS



C-local
needs

LOCAL GOVERNMENT NEEDS

We the People

Pennsylvania, one of the most populous states in the country, had a 1970 population of 11,793,909 people. Pennsylvania represents 5.8 percent of the nation's population on 1.2 percent of its total land area. Between 1960 and 1970 the population of the State increased 4.2 percent. The State is almost five times more densely populated than the nation as a whole, and has an average population density of 262 persons per square mile. The dynamics of the State's population is most dramatically and accurately viewed in terms of its population concentrations.

In 1970, almost three-fourths of the State's population lived in urban areas. The urban population increased 4.1 percent between 1960 and 1970, although a slightly smaller percentage (0.1 percent) of the total State population lived in urban areas in 1970. Within the urban areas, the most significant change was the decrease in the center city population (-5 percent) and the increase (+18 percent) in the urban fringe population. This exodus from the center cities to the suburbs was the most significant and far reaching change in the character of the State's population. Rural areas experienced a 4.5 increase between 1960 and 1970 and, in 1970, represented 28.5 percent of the population.

These population figures have a significant impact on the number and locations of recreation facilities and programs needed to serve the public. With 58.7 percent of the population concentrated in the center cities and their adjacent urbanized fringe areas, and an additional 12.8 percent in other urban areas, the need to provide greater opportunities within and close to the urban areas becomes evident. The fact that 71.5 percent of the population lives in urban areas which cover only 12. 5 percent of the total area of the State presents other serious problems in planning for the provision of basic recreation services.

We Are Individuals

Recreation is a human need. Thus, planning for recreation involves more than just numbers of people, areas and percentages. The provision of recreation facilities and programs must be directly related to individual preferences and opportunities. These preferences and opportunities vary with age, income, education, mobility, sex and social circumstance. The effect of each of these factors must be considered in meeting the recreation needs of all Pennsylvanians.

	1970 Population	% Change 1960-70	% of State Population 1960	% of State Population 1970
The State	11,793,909	+ 4.2	100	100
Urban[1]	8,430,410	+ 4.2	71.6	71.5
Central Cities[2]	3,341,951	-5.08	31.1	28.3
Urban Fringes[3]	3,580,029	+17.96	26.8	30.4
Outside Urban Areas[4]	1,508,431	-2.46	13.7	12.8
Rural[5]	3,363,499	+ 4.5	28.4	28.5

1. Places of 2,500 or more inhabitants
2. Population 50,000 or more or twin cities
3. Urban areas outside central cities
4. Places with urban populations but not identified with a central city
5. The non-urban population

Age

Participation in recreation is known to vary with age. The young typically are the most enthusiastic participants and have the most discretionary time for leisure pursuits. With increasing age active recreation decreases. The *1974 Pennsylvania Recreation Survey* confirmed this strong negative correlation between recreation participation and age, and showed a dramatic reduction in participation after age 65. (The recreation problems of the elderly are discussed under Special Problems).

The 1970 preschool children accounted for 7.9 percent of the population. The needs of this age group are primarily for close to home neighborhood parks and playgrounds to accommodate large muscle activity and creative play opportunities.

The 9.2 percent of the State population in the 5 to 9 year old group are the second most active recreationists. The primary needs for this group are again play areas to accommodate large muscle sport activities and facilities located within walking distance of the home. The recreation survey showed this group to be most active

URBAN CENTERS AND MAJOR URBANIZED AREAS

MAP 1

in bicycling and swimming. Unsatisfied interest was highest in hunting, snow skiing and horseback riding.

Those people between the ages of 10 and 19 were the most active recreation participants in the recreation survey. This group (which represents 19 percent of the total State population) requires large play areas for a wide range of recreation interests, including individual and team sports. Most of the basketball, baseball, football, fishing, camping, ice skating, street hockey and snowmobiling/motorcycling are accounted for by this group, with the most popular activities being bicycling and swimming. High unsatisfied interest was shown in skiing, horseback riding and the use of motorized recreational vehicles.

The young adults 20 to 29 years old are also enthusiastic recreators. With increased income and mobility, they account for the largest share of the driving for pleasure and tennis, but show a diversity of recreation interests encompassing both team and individual sports. Unsatisfied interest was highest in snow skiing and horseback riding.

Participation in all recreation activities except golf declines with each age group after 30. However, with increased leisure time and income all adults present a growing demand for recreation services. The primary recreation interests of these adults are individual and dual life-time sports, including swimming, tennis, golf, and bicycling.

Income

Although recreation is enjoyed by all groups, participation in most recreation activities is influenced by income. The costs of equipment for many activities and the effect of income on accessibility to recreation opportunity cause a very strong positive relationship between income and recreation participation. Participation in skiing, tennis, boating, waterskiing and golf is particularly sensitive to income. Participation in most other recreation activities also increases with income, although the increases are not as dramatic for all activities.

The recreation survey found that recreation participation increases substantially at the $7,000 income level. The per capita recreation activity days for those households with an income under $7,000 was only 68.68 compared to 147.50 activity days for those households with incomes of $7,000 or more. The recreation problems of the economically disadvantaged are more thoroughly discussed under Special Problems.

Education

Participation in recreation is also positively related to educational attainment. Participation in all activities for individuals 20 years and older with less then eight years of education was negligible. This may be expected due to the high positive correlation between education and income.

Sex

Although females constitute 52 percent of the State's population, the provision of recreation services and programs has traditionally been male youth oriented. The recreation survey showed the per capita activity days for females to be 107.45 compared with 158.59 for males. For the individual activities, participation by females was higher for only 5 of the 19 activities. The unsatisfied recreation demand among females was considerably higher than among males for the traditionally male oriented activities, including basketball, baseball, tennis, fishing, football, hunting and street hockey. These figures indicate a definite need to provide additional recreation opportunities for females for all activities, but most particularily for those shown above.

Special Problems

In spite of the affluence and vigor of most Pennsylvanians, there are many who are limited in their recreation opportunity due to special circumstances such as old age, lack of mobility, race, low income, or physical handicap. All of these groups were found to have significantly lower participation rates than the population as a whole. Moreover, the unsatisfied recreation interests of each of these groups indicates deprivation of opportunity, rather than a lack of interest in recreation or a diminished desire to participate.

Lack of Mobility

Non-car ownership was found to be the major deterrent to recreation participation. The per capita activity days for non-car owning households was only 50.14 compared with 136.64 days for car owning households. Lack of mobility severely curtails access to most recreation resources and services, thereby limiting recreation opportunities for all members of the non-car owning household to those which are close to home or which can be reached by public transportation.

Elderly

Participation in active recreation decreases sharply with advancing age. The scope of activities enjoyed by senior citizens is thus limited to less strenuous recreation pursuits. However, participation in *any* form of recreation activity is severely restricted for many older people by the lack of income and mobility.

The survey found that older Pennsylvanians, those over 65, had extremely low participation rates for all of the activities surveyed. Participation for this group was highest in driving for pleasure and nature walks,

although there was substantial unsatisfied interest in swimming and bicycling. The provision of social affairs is also an important need for older people, many of whom have more leisure time than younger people.

The number of older Pennsylvanians has been increasing steadily since 1900. Between 1960 and 1970 this age group experienced a 12.7 percent increase, and now constitutes 10.8 percent of Pennsylvania's population. Future recreation programming must, therefore, address the needs of this growing segment of the State's population.

Low Income

Low income is another major barrier to recreation participation affecting a significant proportion of the Commonwealth population. Eight percent of the State's population was below the national poverty level in 1970 ($3,743 for an urban family of four and $3,195 for a rural family of four). However, in 1970, 29.3% of all Pennsylvanians earned less than $7,000, the level below which recreational opportunities start to become limited. The 69 activity days per capita for low income (under $7,000) households, when compared with the 148 activity days for higher income households is illustrative. Moreover, for *each* of the 19 activities surveyed, low income households showed lower participation rates than higher income households. The higher unsatisfied interest of low income individuals for all but three of the individual activities directly indicates a lack of opportunity for participation rather than a lack of interest, and since many of these individuals are also elderly, non-car owners, or non-white, their needs for all basic services are compounded.

Non-White

Significant recreation problems are also experienced by non-whites. Their recreation problems are similar in many respects to those of other disadvantaged groups, but are often compounded by a multiplicity of other problems including low income, lack of education, lack of mobility and urban residence. (The effects of residence are discussed in greater detail later in this element).

The recreation survey showed that the number of per capita activity days for the non-white population was 116.19 compared with 132.11 for the white population. For the individual activities non-white participation was higher only for basketball. Furthermore, the substantially higher unsatisfied recreation interest of non-whites in 15 out of 17 activities indicates a lack of opportunity for participation, rather than a lack of interest. Deprivation for non-whites was highest for the more income sensitive and non-urban activities, such as boating, tennis and golf.

Handicapped

A member of one out of every eight households is handicapped. Physical limitations, lack of accessibility and opportunity, and structural and cultural barriers dramatically curtail recreation participation. Participation in all recreation activities by the handicapped has been severely limited except for those which are primarily of a passive nature such as visiting museums, attending movies, plays or concerts, and group games. However, the large unsatisfied interest in many active recreation activities indicates again a significant lack of opportunity.

*****

Because of the limitations discussed above, these disadvantaged groups must rely primarily on municipal services and resources to meet their recreation needs. Future programming, therefore, must exert a major thrust toward increasing the municipal recreation opportunities for all disadvantaged persons.

Local Problems

Having summarized population distribution and special needs it is necessary to examine the residence and density pattern of Pennsylvania, for the problems and needs of individuals are multiplied and intensified by the aggregation of people with similar needs and problems throughout the State. These problems are felt most acutely and immediately by the many local governments in the Commonwealth. Local governments have historically responded to these needs in their role to provide for the welfare of their citizens, and have been doing so with varying degrees of success.

. . . . .In the Central Cities

Seventy-one and a half percent of the State's population is concentrated in urban areas, which cover only 12.5 percent of the land. Trying to meet the recreation needs of all these people, living so close together, is one of the major problems confronting Pennsylvania. The problems of urbanization, however, are most dramatic in the center city areas where 28 percent of the population is concentrated on less than 1 percent of the land.

Plagued with substandard schools, soaring unemployment rates, excessive crime, grating noise, polluted water, jungles of solid waste, traffic congestion, smog, abandoned cars, rotting houses, and disappearing open space, Pennsylvania's center cities thrust forward a pretty dismal aspect. With a disproportionate percentage of the State's disadvantaged, the center cities also face a growing demand for services. The typical center city population in Pennsylvania is 32 percent elderly, 10 percent unemployed, 13 percent handicapped, 25 percent non-white, and 10.5 percent poor. Furthermore, car ownership and educational levels in the

center cities are the lowest anywhere in the State. The need for financial assistance is truly critical.

As physical and economic conditions deteriorate, the center cities are bound into a relentless spiral in which industry, jobs and wealth move out, resources decline, the tax base withers and the demand for services increases. The inevitable result is a rising tax rate, which causes even more industry, jobs and wealth to leave. The inner city poor, being unable to move to where the jobs have gone, are abandoned to forage in this blighted environment.

The need to make Pennsylvania's cities decent places to work and live has reached crisis proportions. The provision of parks and open space cannot by itself transform the cities overnight, but it can instill hope in those who must exist in this dolorous environment.

City governments face monumental obstacles in their struggle to provide recreational opportunities. Plagued by a dwindling tax base and with exaggerated financial stress in the provision of other basic public services, recreation and open space needs have been relegated to low priority status. As other problems mount and costs soar, recreation budgets are often the first to be reduced. The limited budgets, soaring land costs, and scarcity of land drastically curtail needed acquisitions. The removal of potential sources of income from the tax roles further restricts the acquisition of additional facilities. High maintenance costs for the many existing older facilities are multiplied by vandalism. The financial inability to maintain adequately some of these facilities makes them unsafe, unattractive, and virtually abandoned.

With acquisition, development, and maintenance costs consuming the major portion of limited budgets, few financial resources are left for programs. In fact, the National Recreation and Park Association estimated that local governments spent twice as much for facilities and maintenance as for programs in 1970. Only 16 cents of every recreation dollar was spent directly on programs for people.[1] Consequently, programs are often under-financed, understaffed, and insufficient in number to adequately serve the recreation interests of the vast center city populations.

. . . . .In the Inner Urban Fringes

The urban fringes of Pennsylvania's center cities are the State's most rapidly growing areas. Housing 30.4 percent of the population, these areas experienced an 18 percent population growth between 1960 and 1970. The urban fringes include diverse environments ranging from the older established boroughs on the edges of the inner city to the outlying, developing townships. Hence, recreational needs of these areas vary considerably.

[1]"Parks & Recreation," August, 1971, p. 21

Pennsylvania's inner urban fringes consist primarily of the older established boroughs. Once suburban in character, these areas are now virtually indistinguishable from the cities they adjoin and suffer from many of the same problems.

Pennsylvania's outer urban fringes (suburbia) are destined to become tomorrow's slums if uncontrolled and unplanned growth and development continue. To prevent further decimation of the land to ensure a suitable living environment for future generations, comprehensive governmental land use planning must be undertaken for the provision of all basic services, including open space and recreational facilities. Public needs must be identified and lands preserved before they are engulfed by residential, industrial and commercial interests. Flood plains must be protected from inappropriate development, and abandoned rights-of-way secured for bikeways and linkages between existing recreation areas. Nature areas must be preserved and protected before they are consumed like the rest of the land. Large community recreation facilities including parks, ice skating rinks and swimming facilities are also needed to provide those facilities which individuals cannot provide for themselves. The suburban environment can be improved by these actions, but only if action is taken while there is still land to save.

. . . . .In the Rural Areas

Rural Pennsylvania is thought of by many as an arcadia free from the problems of urban life. However, a host of serious problems, similar in many respects to those of the center cities, exist in these areas.

With the decline of agriculture, the economic dependence of rural Pennsylvania has shifted to small town businesses and such faltering industries as mining. Limited employment opportunities and a larger problem of underemployment exist in many rural areas, creating both personal and municipal economic problems. The 1970 median family income in these rural areas was $8,953, which was below both the State ($9,558) and the urban ($10,098) median family income. Eight percent of all rural families reported incomes below the $7,000 level which means that a third of all rural Pennsylvanians are recreationally disadvantaged from the viewpoint of income alone.

Although low income is the major problem in many rural areas, other, but related, problems include low educational attainment, poor housing, and the lack of adequate water supplies and sewerage. The low economic status of many rural communities is also reflected in the inability of some local governments to provide adequate health, nutritional, cultural, transportation and recreation services. Distance, poor roads and a lack of public transportation, severely limit access to improved services and facilities for many rural

residents. Access to facilities is further restricted by a low rate of car ownership, which is another reflection of low income.

Open space for recreation is abundant in rural Pennsylvania. However, the abundance of land provides opportunities to meet only a portion of the community's recreation needs. Many rural municipalities, lacking a sufficient tax or population base, are unable to provide recreation leadership staff, programs and even basic facilities for recreation and leisure enjoyment. Thus, the provision of community recreation services is apt to be neglected or provided on a desultory basis by other community organizations.

Local Recreation Facilities

Approximately one-half of the 2,633 local governments in Pennsylvania provide one or more recreation areas. Full-time recreation and park agencies provide services and facilities year round in approximately 120 municipalities (including 21 counties). Recreation services and facilities are provided by other municipalities under the administration of recreation and park boards, school authorities, or other local government agencies. Municipal government agencies are aided in varying degrees in the provision of local recreation services and facilities by private enterprise, non-profit groups, and State and Federal resources. The supply of local recreation resources may be vastly expanded in those communities where school recreation facilities are available for use by the general public.

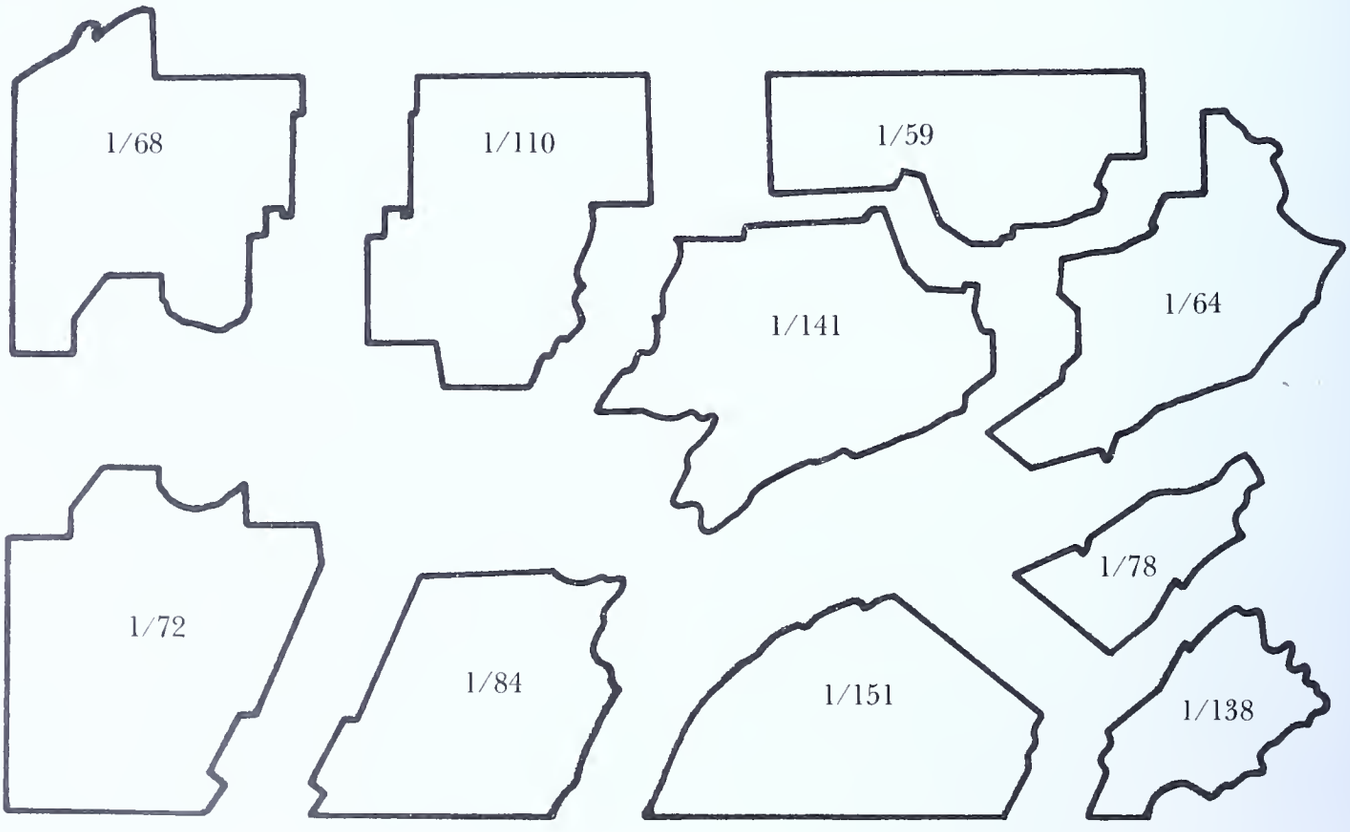
Although the provision of recreation facilities must be reflective of the local community and the needs of its residents, it is essential to view the overall picture of local governments throughout the State with respect to municipal recreation facilities. Through such an assessment, the relative status of municipal recreation in the State can be identified to assist the State and municipalities in determing their recreation priorities. It is essential to bear in mind, however, that the 2,633 local governments of the Commonwealth vary greatly in the provision of recreation facilities, with some providing excellent services and many others providing none.

The analysis of the local government recreation resources which follows includes acreage, picnicking facilities, swimming pools, usable beach, campsites, cabins, hiking and biking trails, and parking spaces. These facilities represent only a portion of the the total municipal recreation resources. The use of the uniform inventory for future recreation plans will include 19 additional kinds of facilities and recreation resources for a greater degree of insight into local recreation needs.

Recreation Acreage

The total space available to Pennsylvanians for land and water recreation use is indicated by the recreation acreage. In 1975, thirty-four percent of the State's total area was identified as recreation acreage. Municipal governments own 126,999.7 acres of recreation space or

THERE IS 1 ACRE OF MUNICIPAL RECREATION ACREAGE FOR EVERY 94 PENNSYLVANIANS



1.28 percent of the Commonwealth's recreation acreage.

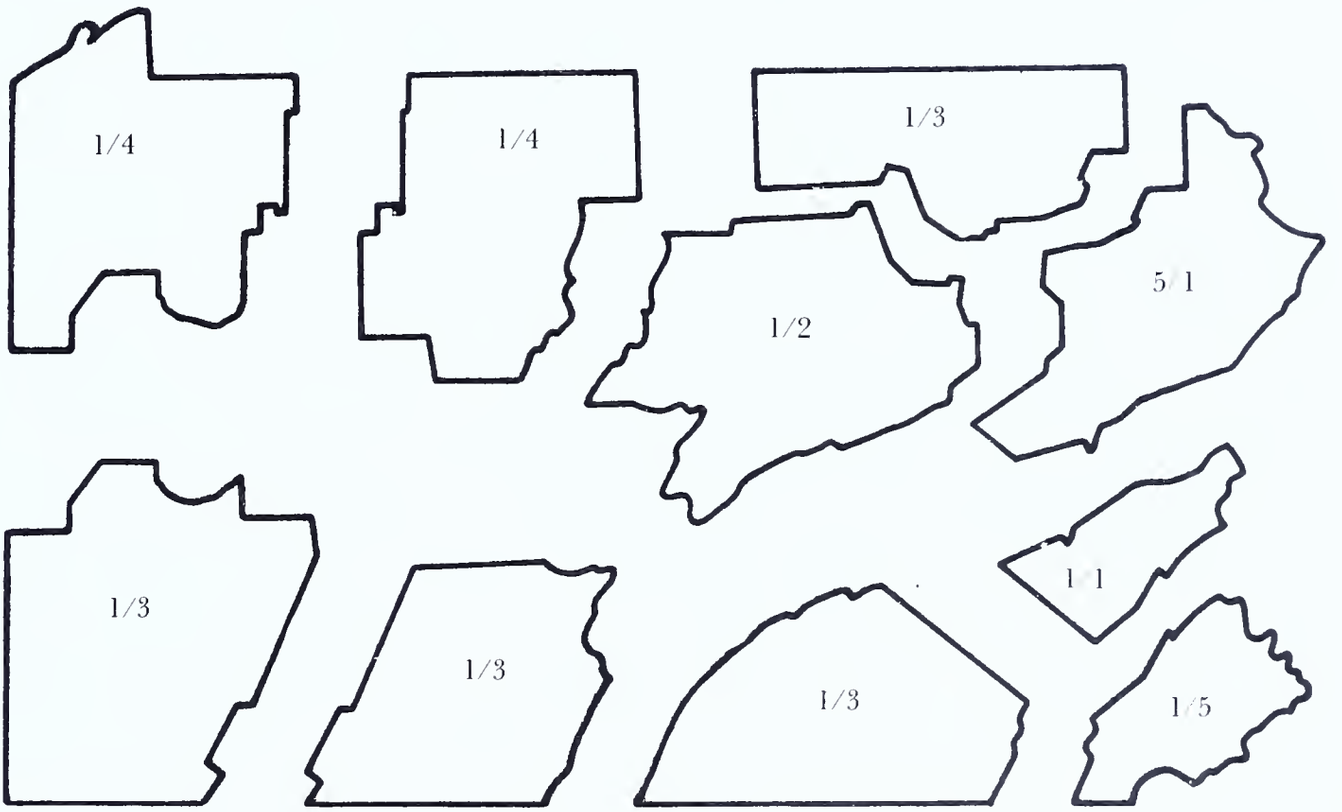
The municipally-owned recreation areas include totlots; neighborhood, community and county parks; playfields; golf courses; camp grounds; and other areas dedicated to recreation use.

Swimming

Swimming is one of the most popular recreation activities enjoyed by Pennsylvania residents. In 1974, sixty-seven percent of the Commonwealth's population participated in swimming. Each participant averaged 31 swimming activity days.

Municipal swimming facilities in Pennsylvania are provided primarily in the form of swimming pools. Municipal governments throughout the State provide a large share of the Commonwealth's swimming pool capacity, having thirty-nine percent of the total pool area. Natural swimming areas are provided by some municipalities, and these areas provide 18 percent of the State's usable beach. In 1974, municipal facilities accounted for 23.3 percent of the State's swimming participation.

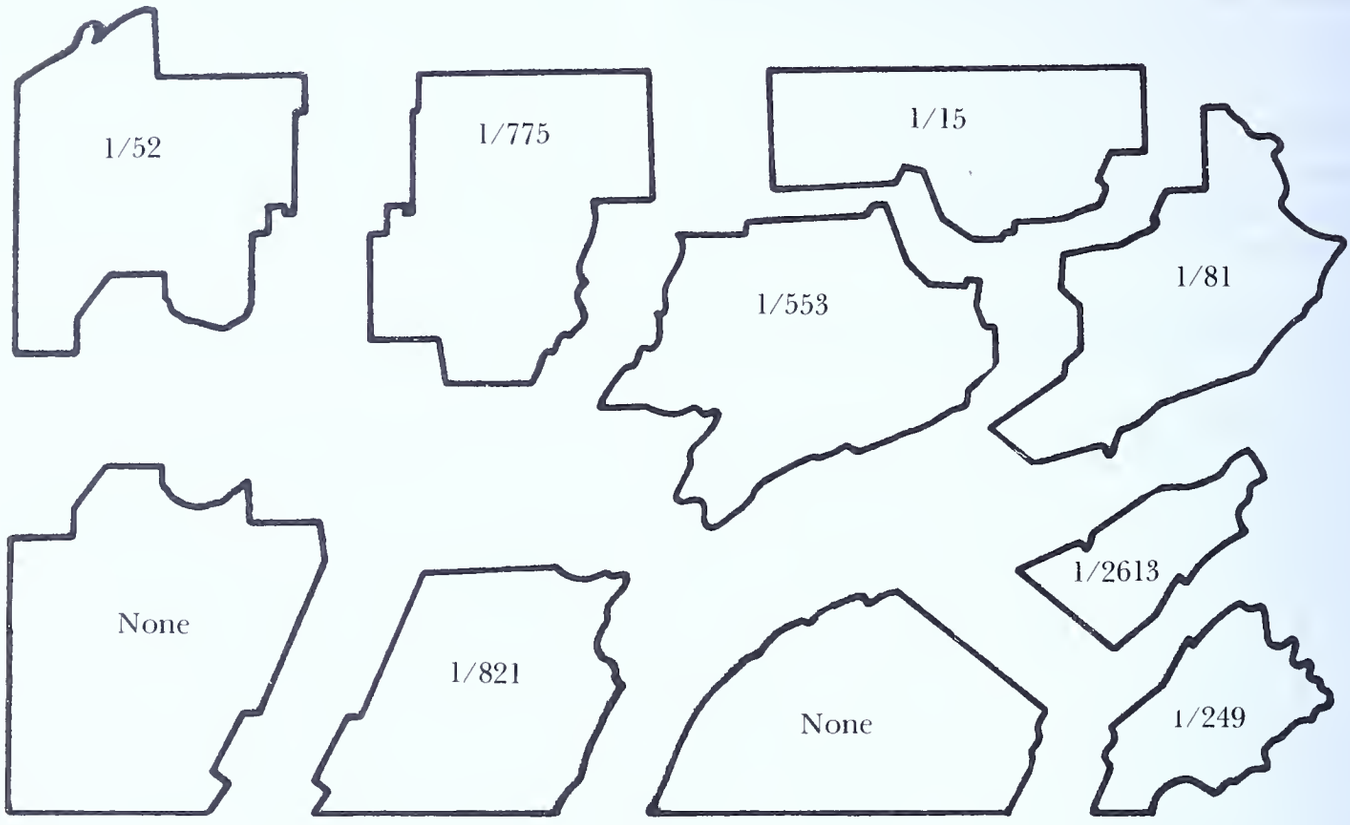
THERE IS 1 SQUARE FOOT OF MUNICIPAL POOLS FOR EVERY 3 PENNSYLVANIANS



There are 2 square feet of municipal pools for every American

There is 1 square foot of municipal pool for every 11 Northeasterners

THERE IS 1 FOOT OF MUNICIPAL BEACH FOR EVERY 273 PENNSYLVANIANS



There is 1 foot of municipal beach for every 807 Americans

There is 1 foot of municipal beach for every 476 Northeasterners

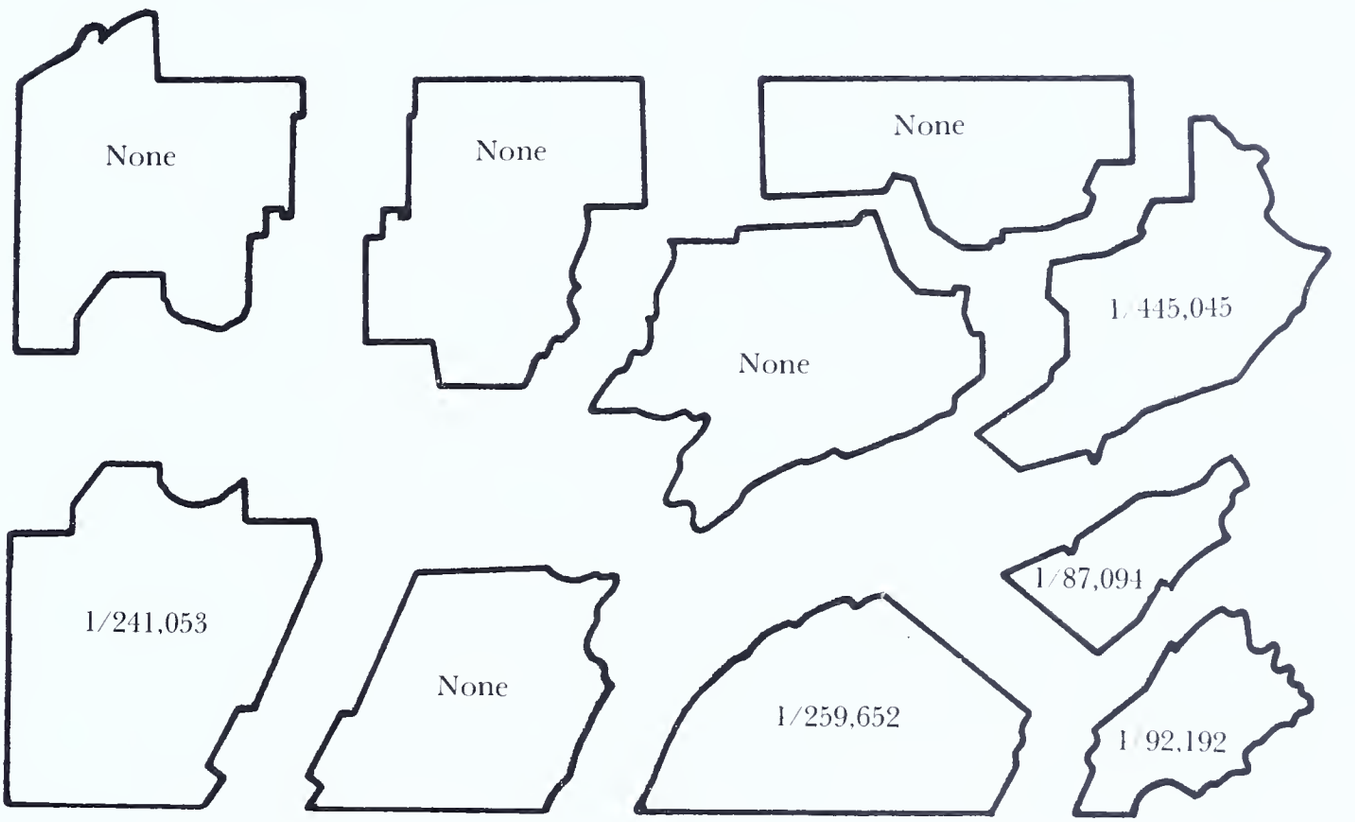
Trails

Trails provide opportunities for some of the most beneficial and inexpensive forms of recreation—hiking and bicycling. An increasing number of Pennsylvanians are enjoying these activities as people become more aware of the role of exercise in healthful living.

Municipal agencies provide bike and hiking trails within parks and are expanding the development of trail systems between local parks. In Pennsylvania local governments presently provide 67 miles of bike trails (eight percent of the State total) and 422 miles of hiking trails (five percent of the State total). Trails are also provided on Federal, State, and private lands with the largest portion of trails being on privately owned lands.

In 1974 bicycling in Pennsylvania accounted for the largest number of activity days of all 19 activities surveyed. Forty-eight percent of the State's population reported participation in this activity, with each participant biking an average of 64 times during the year. Forty percent of the State's population reported participation in hiking or nature walks, with each participant engaging in these activities an average of 18 times.

THERE IS 1 MILE OF MUNICIPAL BIKE TRAIL FOR EVERY 167,948 PENNSYLVANIANS



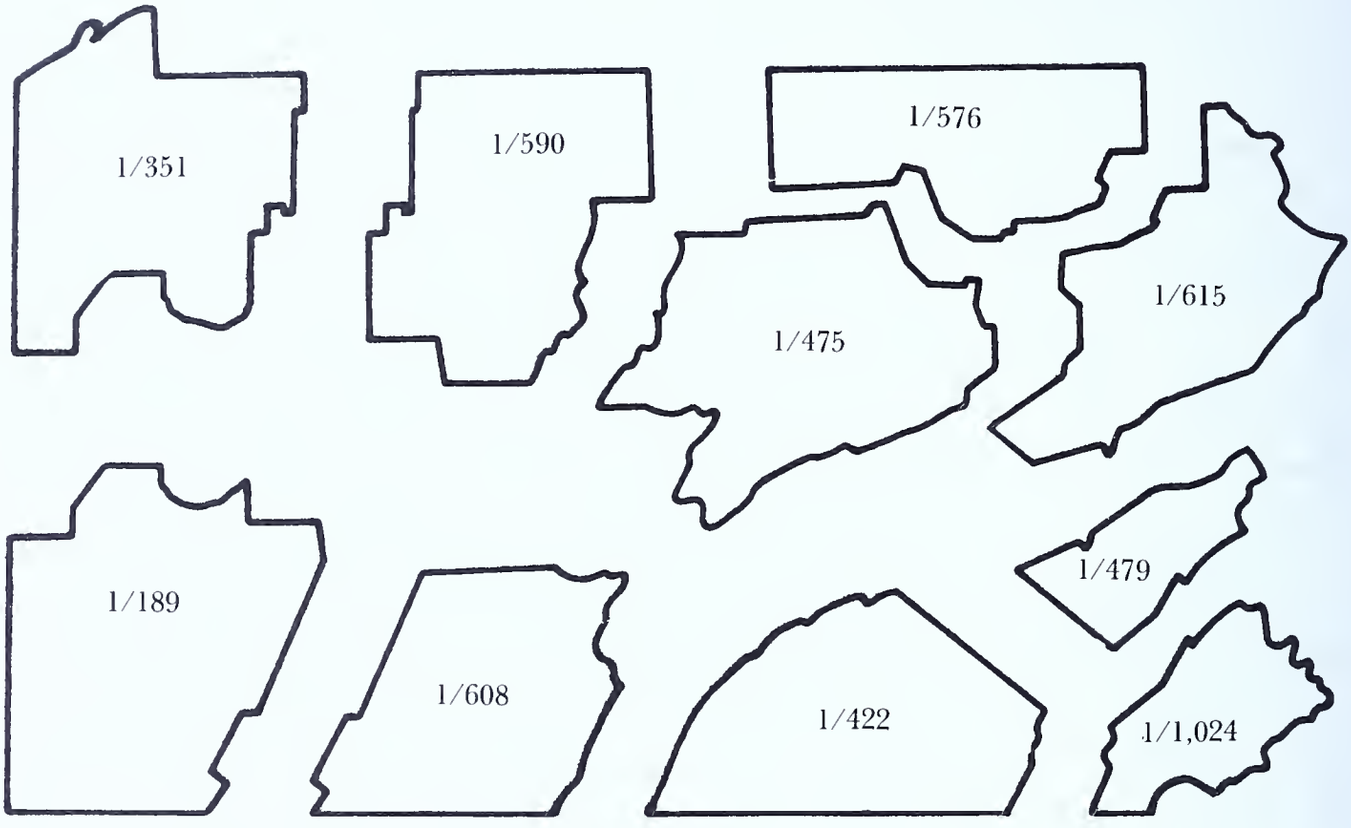
There is 1 mile of municipal bike trail for every 193,800 Americans

There is 1 mile of municipal bike trail for every 158,667 Northeasterners

Picnicking

In 1974, seventy-one percent of Pennsylvania's population participated in this activity an average of 9 times throughout the year. Twenty-two percent of the picnicking in 1974 occurred at municipally-owned facilities throughout the State. Municipal governments provide 30,114 picnic tables in Pennsylvania or twenty-four percent of the State's picnicking resources. Municipal picnic facilities are generally provided in the larger community and county parks. Facilities are also provided on Federal, State, and private lands, with private enterprise providing the largest share of the Commonwealth's picnicking resources.

THERE IS 1 MUNICIPAL PICNIC TABLE FOR EVERY 395 PENNSYLVANIANS



There is 1 municipal picnic table for every 593 Americans

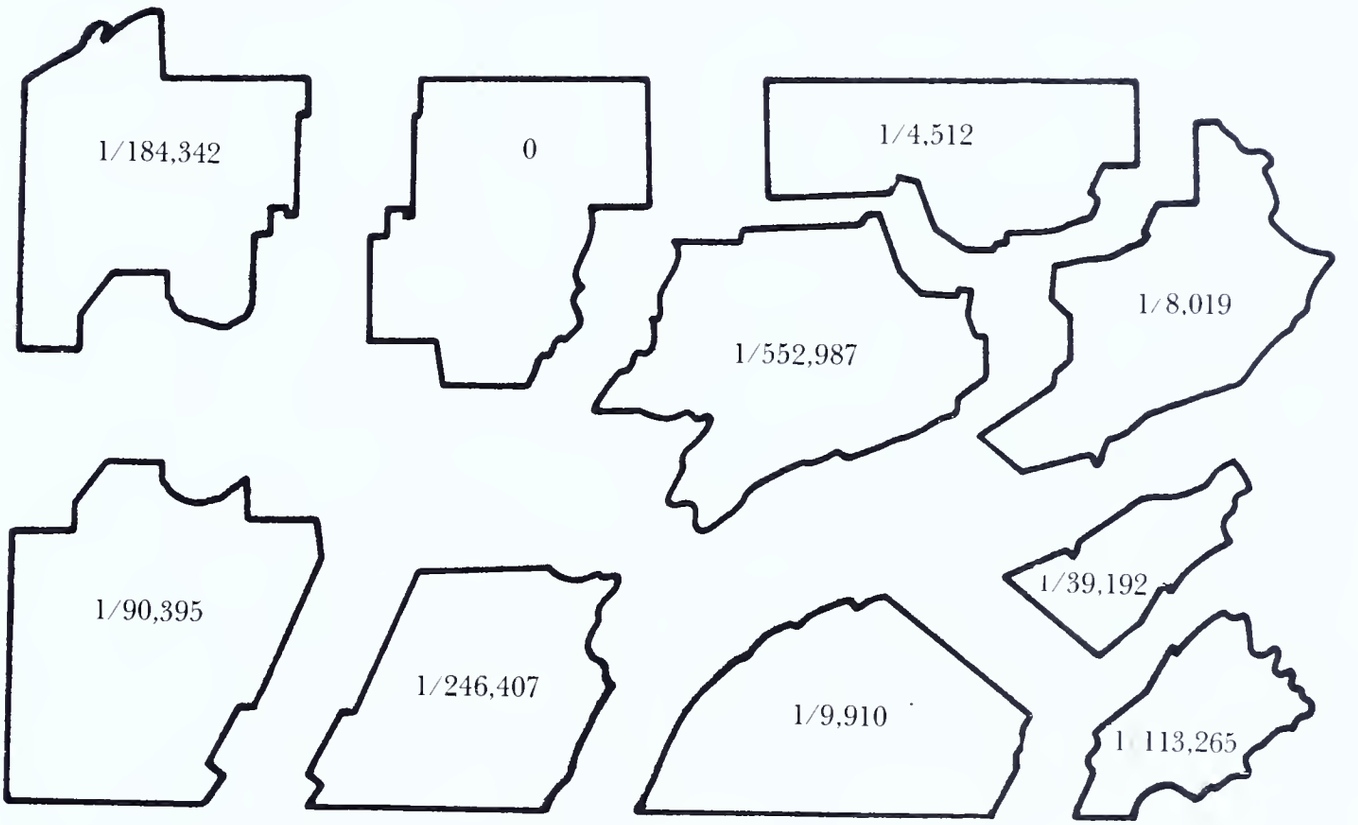
There is 1 municipal picnic table for every 795 Northeasterners

Campsites

Campgrounds provide tent and trailer spaces for those Pennsylvanians wishing to engage in the growing sport of camping. Municipal camping facilities in Pennsylvania are provided in some larger regional and county parks and account for less than one percent (.65%) of all campsites in the State. In 1974, 1.9 percent of the State's camping took place at municipally owned camping facilities. The largest provider of camping facilities in Pennsylvania is private enterprise, with additional facilities provided in State and national parks.

Twenty-six percent of Pennsylvania's population participated in camping in 1974. Pennsylvania campers participated in this activity an average of 11 times during the year.

THERE IS 1 MUNICIPAL CAMPSITE FOR EVERY 32,141 PENNSYLVANIANS



There is 1 municipal campsite for every 5,490 Americans

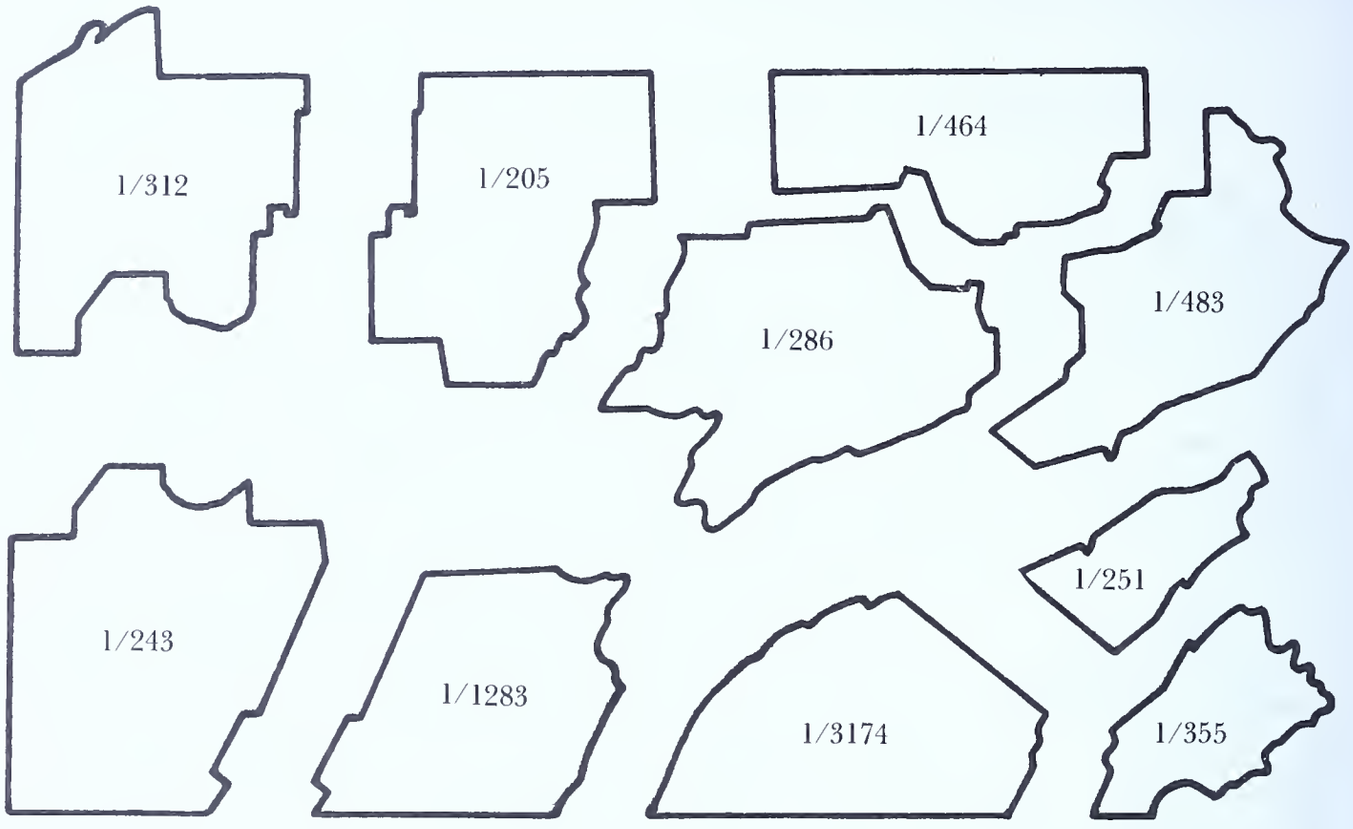
There is 1 municipal campsite for every 7,830 Northeasterners

Parking Spaces

The majority of the recreation users travel to recreation areas by private transportation. The provision of parking spaces is therefore essential to the accessibility of recreation resources.

Municipal governments provide parking spaces at the larger community and county facilities. A total of 38,272 local government owned parking spaces are provided at recreation areas throughout the State.

THERE IS 1 MUNICIPAL RECREATION PARKING SPACE FOR EVERY 312 PENNSYLVANIANS



The Anatomy of Choice—Barriers and Opportunities

The choice of recreation activity is basically a matter of individual preference. The range of recreation options from which an individual may choose, however, is constrained by barriers which limit participation and opportunities which afford participation. These factors ultimately determine, irrespective of individual wishes, what an individual can and cannot do.

. . . . . For the Inner City Resident

Pennsylvania's inner cities afford many unique opportunities for recreation and leisure enjoyment. Typically, the cultural centers of the State, the art museums, libraries and performing art centers found in the larger cities provide some of the finest leisure opportunities available. Professional sports provide another form of relaxation and enjoyment for many people in some cities. In the smaller cities, civic centers, amphitheatres and stadiums attract visiting spectator and cultural events. Most of Pennsylvania's cities also provide one or more institutions of higher learning which offer additional cultural and sporting entertainment to the public. Mass transit makes these opportunities relatively accessible for most inner city residents.

In addition to the numerous leisure oriented facilities located in the cities, the high population densities of these areas afford the city resident many added recreational opportunities. In order to meet the recreation needs of vast numbers of people, the cities are able to sustain a broad and varied array of recreation services and programs representing the public, private, commercial and non-profit sectors. Many of these agencies, including the Police Athletic League and Boys Club, are unique to the urban environment, and many others, including the YMCA and YWCA's, provide their most comprehensive programs in the cities.

The high population density of the inner cities, in addition to supporting a large number of recreational programs, also promotes a greater diversity of programs and activities than is possible in the suburban or rural environment. Since the city resident is more apt to find his individual recreation, social, ethnic, or cultural

preferences shared by many others, more specific kinds of activities are available in the cities.

Although there are many unique recreational and leisure opportunities in Pennsylvania's cities, there are also many barriers to recreation participation which are unique to the city environment. Some of these barriers restrict recreation participation for the general public, while others present major obstacles primarily for the many disadvantaged.

The major barrier to recreation participation in Pennsylvania's center cities is the inequity in the distribution of recreation resources. In spite of the fact that a large portion of the recreation demand is for close-to-home activities, the overwhelming majority of the resources for active recreation is generally far removed from the population concentrations of the State. Federal and State recreation lands, representing forty-two percent of the Commonwealth's recreation resources, are located predominately in the more rural areas and many of the private resources are concentrated in the wealthier suburbs or in the resort regions of the hinterlands. High rise buildings, multiple family dwellings, and impacted housing preclude the existence of one's own private recreation space. The twenty-eight percent of Pennsylvania's population residing in the inner cities is essentially restricted to the use of a severely limited and often overcrowded supply of municipal and quasi-public resources to meet its daily recreation needs.

With a major responsibility to provide recreation resources to meet the needs of these vast populations, the inner cities are financially unable to balance the inequity in the distribution of recreation services and facilities. Confronted with other critical social problems and declining financial resources, the limited municipal finances are, by necessity, often too thinly spread to meet the many social needs which must be met. Thus, only limited finances are left for the provision of recreation services and resources. Unassisted, the 3.24 percent of the municipal budget spent by the average Pennsylvania city in 1973 is grossly inadequate to balance this inequity in the distribution of all recreation resources. The effects of these resource deficits are sorely felt by all city residents.

The physical condition of many local parks in the inner cities is another barrier to recreation participation. Inadequate maintenance, further evidence of municipal financial distress, renders many of the facilities uninviting and often unsafe. Suffering the ravages of time and years of heavy use, many of the older facilities are in need of remodeling and renovation to once again become attractive places to spend one's leisure time. Other facilities, where inadequate design has failed to provide such basics as water supplies or shade from the summer heat, are virtually unused. Still other parks are empty where vandalism, inadequate maintenance, or crime has made them dismal and often unsafe places to go even in broad daylight.

The lack of quality leadership and programs is another barrier. Despite the fact that the most comprehensive programs are provided in the urban areas and the fact that all of Pennsylvania's inner cities provide municipal recreation service, recreation participation is sometimes deterred by the inability of municipal governments to provide a sufficient number of trained personnel or adequate financing for programs. Consequently, many facilities are without adequate staff and programming even during the peak summer months.

The disadvantaged citizens of the State live predominately in the inner cities. These persons, including the aged, the physically handicapped, the mentally retarded, the non-car owners, the racial minorities and the poor, encounter special barriers to recreation participation. For many of these disadvantaged citizens, the major barrier to participation is lack of accessibility; for others the barrier of inaccessibility is compounded by a lack of services to meet their special needs.

Recreation services and resources, although often lacking in quantity and quality, are accessible to most city residents. However, these same services and facilities are not accessible to many of the disadvantaged city residents. The thirty-six percent of the State's poor living in the inner cities, unable to afford expenditures for recreation, are for all practical purposes restricted to use of the limited supply of free municipal facilities. The non-car owners, most of whom also live in the inner cities, are limited to recreation services in their immediate neighborhood and, thus, are virtually excluded from enjoyment of the major portion of the Commonwealth's recreation resources. The fact that most of the poor are also non-car owners compounds their disadvantages and further limits their access to recreation opportunities. The elderly and the nonwhite, many of whom suffer the same multiple disadvantages of low income and lack of mobility, are similarly restricted in their accessibility to all recreation resources.

The handicapped and the elderly are confronted with the same problems of the poor and the non-car owners in lack of access to recreation services and facilities. These groups, however, also have special recreation interests and needs which have historically not been met. Although this situation appears to be improving, the lack of availability of special programs or failure to integrate these groups into the regular programs continues to be a serious barrier to their recreation participation.

. . . . . For the Inner Urban Fringe Resident

The inner urban fringes surrounding the cities,

consisting primarily of the older established boroughs, share many of the recreation and leisure opportunities of the cities they adjoin. The residents of these areas enjoy relatively convenient access to the many recreation and cultural opportunities for unique groups of shared ethnic, national, cultural and recreational interests. Programs and activities are relatively well established, having been developed over the course of many years. The increased number of single family dwellings also provides the opportunity of more at-home recreation enjoyment and open space than is possible in the inner cities.

Although the inner urban fringes share in many of the opportunities of the center cities, they also share many of the same barriers to recreation participation.

The faltering economic status of the municipal governments presents a major barrier to recreation participation in the inner urban fringes. Marginal industry, a declining tax base and increasing social problems, including poverty, vandalism and crime, sorely tax the municipal budget. The inability to meet these needs creates obstacles to recreation participation. Primary among these barriers is the lack of sufficient facilities. The resource supply, built for a less dense population, falls far short of meeting today's need for local recreation. Lack of room for expansion and municipal financial stress all but preclude elimination of this resource deficit.

The physical condition of the recreation resources is another barrier to recreation participation shared by both the city and inner urban fringe resident. With increasing age and use, the existing facilities are often in dire need of renovation. Inadequate maintenance and increasing vandalism further contribute to their deterioration and subsequent neglect and abandonment.

The lack of relevant programs and adequate leadership poses further barriers to recreation participation for many inner urban fringe residents, but financial hardship curtails needed changes.

Although the majority of the Commonwealth's disadvantaged live in the inner cities, an increasing number of this population with special needs resides in the inner urban fringes. The barriers to recreation participation for these special groups are essentially the same regardless of place of residence.

. . . . . For the Outer Urban Fringe Resident

The outer urban fringes or suburbs include the areas ranging from the older townships to the newer, outlying suburban developments. These communities and their residents, in spite of their diversity and individuality, share many common characteristics which ultimately promote or deter recreation participation.

Typically the more affluent of the State's residents, the average suburbanite's improved financial status opens the door to numerous recreational opportunities not available to the less fortunate. The typical suburban family owns at least one, and increasingly, two or possibly three cars. Highly mobile, the suburbanite enjoys better access to the many recreation opportunities throughout the State. Situated ideally between the population centers of the inner cities and the rural hinterlands, access to recreation opportunity for the suburbanite is generally practical as well as possible.

In addition to the advantage of better accessibility, the typical suburbanite's more affluent financial status provides other recreation opportunities. Private home ownership, often skirted with generous acreage, provides for many at-home leisure and recreational opportunities including picnics, social gatherings, and active games and sports. The more affluent suburban dweller also increasingly enjoys the added luxury of a private backyard pool and/or membership in private swimming, golf, or tennis clubs.

Municipal recreation facilities and services supplement the many other recreation and leisure opportunities available to the typical suburban resident. Of more recent vintage and design than their aged city counterparts, these suburban facilities and services tend to discourage greater recreation participation. Suburban municipal governments usually are able to provide a greater number of recreation opportunities as a direct result of less pressing social needs, lower acquisition costs and less vandalism, and lower maintenance costs. These combined savings and the availability of other resources permit some municipal governments to provide the larger, more costly recreation facilities for specialized recreation activities such as swimming, golf and tennis, thus broadening the scope of recreation opportunities for many suburbanites.

In spite of the many leisure opportunities for most suburban residents, barriers to recreation participation exist none-the-less. Chief among these barriers to recreation participation for some suburban residents is the influence of the suburban population explosion. Recreation opportunities in the communities so affected are often limited due to overcrowding as recreation development lags behind population growth. A particular problem exists for residents of the developing communities, many of whom are left without any municipal resources or services during the initial throes of community development and organization.

Another barrier to recreation participation in some developing suburban communities is citizen apathy. Affluence and the availability of other recreation resources for some suburbanites can effectively reduce an appreciation for the value of and need to provide municipal recreation services which thereby reduces

support of the local government recreation effort. The provision of recreation opportunities in turn is limited in direct proportion to this lack of support.

The lack of an adequate recreation management staff provides additional barriers to recreation opportunity in some suburban communities. The provision of recreation services and opportunities in these communities is frequently slighted or overlooked due to the lack of advocation for the community's recreation needs and the lack of comprehensive planning for public services.

..... For the Rural Resident

Free from the confines of the city and suburbs, rural Pennsylvania offers many unique recreation and leisure opportunities. The abundant open space and less hectic life significantly reduces the need to "get away from it all". Much of the rural recreation focuses on simple at-home activity and enjoyment of the natural environment. The natural environment also provides opportunity for hiking, camping, picnicking, hunting and fishing.

Many of the recreation needs of rural residents have historically been met by churches, schools and community organizations, such as 4-H Clubs. Interested lay and professional people frequently donate their services to these organizations for the betterment of the community. The sense of community spirit is an important factor with the school or church being the focal point of community activity.

Special interest groups in many rural communities provide additional recreation opportunities. Frequently initiated by common community concerns, such groups may stimulate existing agencies into organizing people for specific kinds of projects. The efforts of such groups have resulted in the acquisition and development of numerous recreational facilities in many rural communities and stimulated the provision of recreation programs.

In spite of the unique recreation opportunities in rural communities, distance and the dispersion of services remain a major barrier to recreation participation for many rural residents. Many of the residents who live outside of the community proper are without public or private transportation with which they could gain access to the community's services. Distance and travel time restricts many of those even with transportation from access to improved services in the suburbs and center cities.

The lack of a sufficient population and tax base to support basic public services presents another barrier to recreation opportunity in many rural communities. Many are unable to provide a qualified recreation staff to coordinate and administer a recreation services delivery system. As a result, the provision of organized recreation programs must rely primarily on individual and group initiative. Often the result is that limited programs are provided sporadically. Other communities without aid from outside sources are unable to provide the more costly facilities such as swimming pools. Understaffed and overwhelmed by the complexity of the assistance programs which could ease these financial hardships, many rural communities have not been able to take full advantage of existing grant programs in order to expand their recreation opportunities.

Participation in Recreation Activities

Participation in recreation activities is directly related to the opportunities affording and the barriers limiting participation. The majority of the State's residents, however, are able to overcome environmental

RANK ORDER PARTICIPATION IN 19 ACTIVITIES BY POPULATION DENSITY

	Metropolitan	Urban	Suburban-Rural
Bicycling	1	1	1
Swimming	2	2	2
Sightseeing or driving for pleasure	3	3	3
Basketball	4	4	6
Baseball or softball	5	5	5
Hiking or nature walks	7	6	4
Picnicking	8	7	7
Tennis	6	9	9
Fishing	10	8	8
Golf or Miniature golf	9	10	12
Football	11	12	16
Off-road motor vehicles	17	11	10
Camping	13	13	13
Boating, canoeing, waterskiing	12	14	14
Hunting or sport shooting	18	14	11
Horseback riding	16	15	15
Ice skating	15	15	17
Street hockey	14	16	18
Snow skiing	19	17	19

barriers and thus expand their recreation opportunities and horizons.

By relating recreation participation to population density, the recreation survey analyzed recreation participation for metropolitan (high density; 6,000 or more persons per square mile), urban (medium density; 1,000-5,999 persons per square mile), and suburban-rural (low density; under 1,000 persons per square mile) areas. The per capita activity days for these areas were respectively 125.43, 136.26 and 130.88.

In an analysis of the individual activities by population density, the only significant difference was a higher participation in city type activities, such as basketball and street hockey, and a much lower participation in wilderness activities in urban areas. In fact, persons living in high density places were found to be disadvantaged with respect to rural or wilderness activities. These observations can be expected due to the lack of facilities and access. For all three density levels participation was highest, in rank order, in bicycling, swimming, and driving for pleasure.

The unsatisfied recreation interest for the individual activities was greatest in the metropolitan areas for 13 of the 19 activities: sightseeing, hiking, picnicking, tennis, fishing, off-road motor vehicles, camping, boating, hunting, horseback riding, ice skating, street hockey, and snow skiing. Access to facilities for these activities is generally restricted for the typical metropolitan resident. The unsatisfied recreation interest also shows considerable similarity for the three population densities. For all density areas the unsatisfied interest was greatest for snow skiing, horseback riding and off-road vehicles in rank order.

The similarities of recreation participation and interest for metropolitan, urban and suburban-rural residents do not permit definite conclusions to be drawn. However, three observations are pertinent:

1. The densities studied are not sufficiently discriminating to indicate significant differences in recreation opportunity and deprivation.
2. The underrepresentation of the State's disadvantaged and overrepresentation of the middle income and suburban residents obscure the deprivation of the many inner city disadvantaged residents.
3. Recreation participation and interest are relatively constant for all Pennsylvanians irrespective of place of residence.

What We Need And Where It Is Needed

The previous sections have identified the people who use local recreation resources and the problems they encounter in seeking to satisfy their recreation needs. The local government efforts to meet these needs and pressures have also been examined. This analysis leads to the following conclusions regarding the direction local governments should be taking to better serve the recreation needs of their residents.

Metropolitan and Urban Needs

The metropolitan and urban communities need to promote maximum utilization of existing resources, to acquire additional small sub-neighborhood and neighborhood parks, to increase the accessibility to recreation opportunities for their many disadvantaged residents, to cooperate with other agencies in the provision of recreation opportunities, to expand and diversify their recreation programs, and to plan innovatively for the further expansion of recreation opportunities.

The densely populated metropolitan and urban areas

RANK ORDER UNSATISFIED RECREATION INTEREST BY POPULATION DENSITY

	Metropolitan	Urban	Suburban-Rural
Snow skiing	1	1	1
Horseback riding	2	2	2
Off-road motor vehicles	3	3	3
Tennis	7	4	4
Camping	4	5	5
Boating, canoeing, waterskiing	6	6	6
Ice skating	8	7	7
Street hockey	9	8	13
Hunting or sport shooting	5	9	9
Fishing	10	10	10
Golf or minature golf	11	11	8
Football	12	15	11
Hiking or nature walks	13	12	15
Basketball	14	13	12
Bicycling	15	14	14
Baseball or softball	16	16	16
Picnicking	17	19	18
Swimming	18	17	17
Sightseeing or driving for pleasure	19	18	19

of the State have the fewest resources for meeting the recreation needs of their vast populations. The intensity of development and high land costs virtually assure a continuing shortage of recreation resources. These communities must therefore exert a major thrust to achieve maximum utilization of existing resources.

Optional utilization of facilities can be promoted through comprehensive year-round programming. Competent leadership, renovation of deteriorating facilities and an adequate maintenance program for all facilities must also be provided to maximize use of the resources. Use of facilities can also be increased through multipurpose use of areas and by extending use beyond the usual activity hours or season. Some examples of extended use which communities should consider include longer hours of operation, lighting of facilities for night use, weekend programming, out-of-season use of facilities for other activities, increased use of indoor facilities and semi-permanent coverage of outdoor facilities such as air supported structures.

Park lands serve as backyard space for many metropolitan and urban residents. Consequently, there is a critical need for facilities within walking distance of the home where children can play. The concentration of the elderly, non-car owners and poor in the metropolitan areas further increases the necessity for neighborhood recreational areas. Therefore, both metropolitan and urban communities should concentrate on the acquisition of additonal small neighborhood and subneighborhood facilities. Top priority should be given to providing these facilities in the more disadvantaged sections of the community.

Development within the metropolitan and urban areas should concentrate on increasing the opportunities for those activities for which there is greatest demand and least supply. Generally, these are facilities for water oriented activity and for court games and field sports, i.e. tennis, swimming, basketball and field games. Hiking and biking facilities are also needed. Communities lacking suitable land for the development of these latter facilities may find that the provision of supportive resources like bike racks and scenic routes on little used streets will satisfy some of the demand for these activities.

Metropolitan and urban communities need to cooperate with other agencies in the planning, provision and publicizing of recreation opportunities. Land and facilities associated with existing public schools in particular offer one of the greatest potentials for expanding recreation opportunities. Schools are ideally located for convenient access and often little used during off-school hours. Increased utilization of school facilities can thus result in considerable savings to the community. Municipal governments should also work cooperatively with private and non-profit agencies in planning, providing, and publicizing recreation opportunities and resources to avoid wasteful duplication of services and to provide a comprehensive information system.

Programs also need to be expanded and diversified by metropolitan and urban governments. Communities need to provide programs to satisfy a broad range of interests for all segments of their population in particular the elderly, the handicapped, the non-white, the poor and females. Citizen participation should be encouraged in both the planning and delivery of programs through advisory councils and the use of volunteers.

All communities need to be innovative in planning for further expansion of recreation opportunities. The limited physical resources in metropolitan and urban areas necessitate that these communities in particular plan for the future with vision and foresight. Therefore, communities should plan for meeting tomorrow's needs today, yet not restrict themselves to the present state of the art.

Suburban Needs

Suburban communities need to promote maximum utilization of existing resources, to expand and diversify their recreation programs, to make programs and facilities more accessible for their disadvantaged residents, to acquire additional small neighborhood and neighborhood parks, to plan comprehensively for future land use, to provide specialized community recreation facilities, and to work cooperatively with other agencies in the provision of recreation opportunities.

Many of the needs of suburban communities are identical to those of the metropolitan and urban communities. The common program, acquisition, resources utilization and intergovernmental cooperation needs which were explained in the preceding section also apply here. The needs which suburban communities in particular should be concerned with are identified in this section.

Rapid and sometimes unplanned growth in the expanding suburban communities has resulted in much of the prime recreation land being swallowed by residential, industrial, and commercial interests. Suburban communities, therefore, must be concerned particularly with comprehensive land use planning to ensure the best use of their dwindling natural resources. Of primary concern among these land use considerations should be the preservation of natural and historic areas, the provision of trails to link existing and future facilities into a congruent whole and the conservation of prime recreation lands for maximum recreational benefits. To accomplish these goals, communities should consider the use of abandoned railroad spurs,

multiple use of utility right-of-ways and appropriate recreational use of flood plains, in addition to the more traditional methods of increasing their recreation resources.

Having sufficient land still available for the development of large recreation facilities and fewer pressing social needs, most suburban communities are in a better position than other areas to provide the more costly types of recreation facilities, such as ice rinks, golf courses, and recreation centers, which individuals cannot provide for themselves. Therefore, developmental efforts should be directed toward the provision of these larger indoor and outdoor community facilities while land costs permit, rather than merely duplicating the backyard type facilities which most suburbanites already enjoy.

Rural Needs

Rural communities need to provide at least part-time recreation leadership for their residents, to expand their recreation programming, to acquire basic community recreation facilities, to work cooperatively with other agencies and political subdivisions in the provision of recreation services and to have a simplified program of State government assistance to help them meet their recreation needs.

Many rural communities lack a sufficient tax and population base to provide full-time recreation leadership. However, the abundance of opportunities for hunting, fishing, hiking and camping in rural communities satisfies only a portion of the citizens' recreation needs and interest. Without leadership, opportunities for a wide variety of organized sports activities and cultural and social events are often lacking in these communities. Rural communities should strive to provide at least part-time recreation leadership in order to coordinate and administer the delivery of a diversified recreation program for their residents.

Some of the smaller rural communities lack basic recreation facilities such as ball fields, playgrounds, and areas for court games. Acquisition and development efforts in these communities should be directed initially toward the provision of these basic recreation facilities. All rural communities should continue planned acquisition for recreation and conservation while land is still available at a reasonable cost.

The lack of a sufficient tax and population base in many rural communities creates a special need for rural governments to work cooperatively with other agencies and political subdivisions in the provision of recreation opportunities. Cooperation with the schools can provide communities with many of the indoor and outdoor facilities and programs they lack. Cooperation with other municipalities and county governments can also provide rural communities with sufficient funds for the more costly facilities including swimming pools, tennis courts, recreation centers and skating rinks, as well as the cost of leadership, planning, and maintenance. Efforts to provide recreation services must also be coordinated with churches, 4-H Clubs, and other community organizations, which are often the main providers of recreation opportunities in rural communities.

Typically, governmental financial assistance to rural communities has been for smaller and less complex projects than would be undertaken by larger communities in the State. Existing requirements for participation in these programs are complex and time consuming and small governments are unable or unwilling to meet the complicated administrative and procedural requirements attendant to all large grant programs. Rural communities need a simplified program of financial assistance that is in keeping with the limited nature of their facility and program needs.

Acquisition Needs

Many communities need to acquire additional space for recreational use. Top priority should be given to the acquisition of sub-neighborhood, neighborhood and community scale parks and facilities. Open space and conservation acquisition should be continued as the opportunity arises. Communities should also explore means other than outright purchase to secure and protect recreation and open space lands.

Without adequate land and space there can be no effective recreational services. Those communities lacking sufficient acreage for recreational use should continue their efforts to acquire additional recreation and open space lands.

Pennsylvania's local governments presently provide 127,000 acres of recreation space for their residents. Approximately 66,000 acres of this total are in sub-neighborhood, neighborhood and community scale parks of less than 100 acres. Based on the national standard of a minimum of 10 acres of small parks per 1,000 people, local governments in 1970 had a deficit of approximately 52,000 acres of small scale community parks. Projected to 1985, an additional 11,000 acres of small parks will be needed. Therefore, Pennsylvania communities, particularly metropolitan communities, should concentrate on acquiring parcels of land which can be developed into small parks which meet the day-to-day recreation needs of the public.

Local governments presently provide approximately 60,000 acres of large scale county and regional parks. Together with State parks, sufficient acreage now exists to meet the recommended minimum national standard of 20 acres of large parks per 1,000 people. Consequently, acquisition of additional large park acreage must be evaluated in light of proximate large state and other local government holdings.

While land is still available at reasonable costs, communities should also continue open space and conservation acquisition as the opportunities arise. Areas of particular concern include flood plains, stream valleys, natural and unique lands, marshlands, estuaries, steep slopes and historical sites.

Communities must also explore means other than outright purchase to secure and protect open space and recreation lands. Methods which should be considered include donation, development rights transfer, lease, easements, tax incentives, and mandatory dedication.

Development Needs

Communities need to develop both indoor and outdoor recreation facilities to meet the recreation needs of their residents. Priority should be given to the development of sub-neighborhood and neighborhood scale parks and facilities.

There is a growing need throughout the State for the provision of facilities for active recreation use as a result of increased income and leisure time and a greater appreciation of the importance of physical activity to health and well-being. However, in many parts of Pennsylvania, development has not kept pace with this need. As a result, many of the recreation lands owned by municipal governments have not been developed for active use. All communities, and in particular those communities exceeding the national standard of 10 acres per 1,000 people, should strive to develop the facilities needed for both active and passive recreation. Priority should be given to intensive development of the sub-neighborhood and neighborhood-scale facilities which will satisfy most of the daily recreation needs.

The demand study and inventory have shown that the facilities needed by most local governments include swimming pools, courts for basketball and tennis, ballfields, and hiking and biking trails. Indoor facilities, including recreation centers, are also needed in most communities. Design considerations should include multi-purpose and extended use facilities, accommodations for both active and passive recreation uses, and facilities for the handicapped.

Program Needs

Municipalities need to expand and diversify recreation programs to reach a greater portion of the general public and more specifically those segments of the population not generally served, including the elderly, the low income, the handicapped, females, non-whites and the poor.

Programming is the provision of a broad range of planned recreation activities and is the basis of recreational service. The delivery of programs is at least as important, if not more important, to the recreation delivery system than the provision of facilities. Although some Pennsylvania communities presently provide excellent programs, many others provide none.

A recent survey of local park users in selected communities in the State showed that forty-two percent of the users were involved in one or more organized recreation programs. Of those who said they would like to participate in programs which were not available, the distribution was as follows:

SPONSORED PROGRAMS DESIRED AT LOCAL PARKS

(by percent)

Rock Festival	33.2
Concerts	22.8
Sports Activities	18.7
Camping & Outdoor crafts	17.7
Sports Instruction	14.6
Gymnastics	14.3
Music Programs	12.0
Arts and Crafts	11.0
Dancing	8.0
Special Events	7.0
Drama	4.9
Environmental Education	4.1
Senior Citizens Program	2.7
Playground Programs	2.0
Other	2.4
	*175.5

*Totals to more than 100 percent due to participation in more than one program in some instances.

The provision of quality recreation programming enhances recreation participation. People are attracted to programs for the enjoyment, excitement, learning opportunities, and social interaction not found in participating in the activity on their own. Programs can be passive or active or highly structured or spontaneous, thus serving a wide range of interests.

Local governments need to expand and diversify their recreation programs to provide increased recreation opportunities for all of their residents. Historically, most local recreation programs have been male youth, competitive team sports oriented. These programs should become part of a comprehensively balanced program which would include non-competitive activities, individual and dual sports, arts and crafts, and cultural and social programs. Programs should provide activities for all age groups, females, the handicapped, the low income and the non-white and be distributed throughout the day, week, and year. Communities should make a special effort to provide year-round programming.

Communities need to provide programs not only to serve the recreation interests of their citizens, but also to increase the number of people who can use a facility

simultaneously and to ensure continuous use of the facility. Imaginative programming can also increase the supply of recreation resources through the creative use of non-recreation areas such as parking lots and vacant streets.

Programs should be brought to the people, preferably at the neighborhood and sub-neighborhood level. The use of mobile units can improve effectively the delivery of programs in some communities. In sparsely populated areas, or where programs require specialized facilities, mass transportation should be used to increase accessibility to programs.

Leadership Needs

Professional recreation leadership is needed in those municipalities with a sufficient population base to warrant full-time comprehensive programming and services. Typically these are communities with a population of 15,000 or more. Smaller communities need to strive to provide at least part-time competent recreation leadership.

Professional recreation personnel are essential to quality recreation service and programming. Effective administration, organization, and management provide for maximum utilization of the physical and financial resources. Professional knowledge and sensitivity to the community's recreation needs enables recreation personnel to provide comprehensive programming to meet the recreation interests of all segments of the community. Through cooperation with other public, private, quasi-public, civic, school, and volunteer groups, the recreation professional can coordinate effectively the delivery of comprehensive services and programs in the community.

Pennsylvania has 99 municipalities below the county level with populations in excess of 15,000. Of this number, 60 municipalities provide full-time recreation administrators for the delivery of recreation services for their residents.

The 2,467 municipalities in the State below the county level with populations under 15,000 typically do not have a sufficient tax base to support full-time recreation leadership. These communities should seek to provide at least competent, part-time recreation leadership or, where feasible, comprehensive services including conjunctive leadership with other municipalities or agencies.

As important as leadership is, professional staffs frequently are too small to meet all community leadership needs. In this case municipalities should seek competent volunteer leadership to assist and supplement the professional staff. America is historically a nation of volunteers; given a sense of community and encouragement, people are usually willing to volunteer their services for a worthwhile purpose.

Maintenance Needs

Communities need to increase the use of existing recreation areas and facilities through adequate maintenance of facilities.

The use and misuse of recreation and park facilities are related directly to the physical condition and appearance of the facilities. Attractive, well designed, and well maintained facilities encourage recreation participation. Conversely, dilapidated, run-down facilities discourage and repel recreation use. The recreation environment must be designed and maintained so that it will be aesthetically pleasing and inviting to the potential recreation user if maximum utilization of the resource is to be achieved. Moreover, hazardous conditions resulting from inadequate maintenance, including broken glass and equipment, not only endanger the safety of the recreation user, but also promote subsequent abuse and disuse of the resource.

Administrative planning must include sufficient financial resources for maintenance to ensure maximum utilization of the facility. Increasing costs for all services have forced many municipal governments to make increasingly difficult decisions regarding the allocation of limited financial resources. In too many communities the capital recreation projects, being more visible and appealing than many other programs, have flourished at the expense of the less popular and appealing maintenance program. These communities must reassess the allocation of their financial resources to provide adequate funding for maintenance of existing facilities and plan for the cost of maintenance for proposed projects prior to acquisition.

Special Needs

Communities need to increase the accessibility and availability of recreation services and opportunities to meet the recreation needs of the elderly, the low income, the non-car owners, the non-white and the handicapped.

There are many Pennsylvanians for whom recreation opportunity is not generally accessible or available. These groups, including the elderly, the low income, the non-car owners, the non-white and the handicapped, for whom recreation opportunity is often restricted, must rely primarily on limited municipal resources to meet their recreation needs. Municipal government must, therefore, exert a major effort to increase the availability and accessibility of recreation opportunity for these citizens.

Accessibility to recreation opportunity for many of the State's recreationally circumscribed citizens can be significantly improved by a locational policy facoring the development of recreation areas and services in recreationally deprived areas. Statewide these areas are

typically the center cities, the declining urban fringes, and the less affluent rural communities. Within each community these deprived areas are generally the poorer and older sections of the community. Developmental policy in these areas should favor a system of smaller neighborhood facilities to increase accessibility for all citizens, and specifically for the recreationally disadvantaged.

Accessibility and availability of recreation programs are also of particular importance to the recreationally disadvantaged. The low income, elderly and handicapped individuals in particular frequently lack the skills and tools for recreation participation on their own. Programs also provide the assistance and special adaptations the elderly and handicapped may need to participate in many activities. In some instances integration of specialized programs into existing programs may br required initially to promote participation by these groups.

It is preferable to bring recreation resources and services to the people. However, in special circumstances it may be more feasible to bring the people to the resources. The key element here is group programs and group transportation. These actions can be of particular value in meeting the recreation needs of the elderly, the poor, the non-car owner and the more severely handicapped person by providing opportunities at reduced cost, along with transportation, assistance and companionship.

The unique problems of individuals who are confined to a wheelchair, require support in walking, or have coordination disabilities require special measures to increase accessibility to recreation areas and services. Simple architectural or physical barriers such as stairs, dangerous surfaces, and the lack of hand rails can effectively limit their recreation participation. Therefore, communities should make special and concerted efforts to locate and eliminate all structural and physical barriers which might restrict recreation participation by these handicapped persons.

A program designed to achieve equal recreational opportunity for all members of the community is predicated upon determining the extent of present inequities. Communities should seek not only to identify their disadvantaged citizens, but also encourage their participation in the planning process.

Planning Needs

Communities need to undertake comprehensive horizontal and vertical planning for the delivery of all basic services, including the provision of recreation opportunities and open space.

Planning is vital to all Pennsylvania communities. Years of unplanned growth have resulted in mutilation of the land, patchwork living environments, squandering of limited financial and physical resources, duplication of services, and a tome of unmet needs. Only by a commitment to continuous long range planning can communities halt this internecine sprawl and dart-board expenditure of resources.

The expenditure of large amounts of public monies for recreation necessitates that the planning process consider not only the administration, maintenance, financing and operation of recreation services, but also the level of present opportunities, the opportunities which need to be provided and where these opportunities are needed. It is essential that all the elements of the community be involved in the planning process. Citizen involvement, including input from the handicapped, the elderly, the poor, non-car owners and non-whites, should be implemented through the use of advisory and neighborhood councils. Private, commercial, non-profit, volunteer agencies and schools must also be included in the planning process to ensure that needed services are available and to avoid wasteful duplication of services.

The provision of recreation services and opportunities is inextricably fused with the delivery of all other community services, including housing, transportation, water and sewerage, and health services. Therefore, in order to make certain that limited physical and financial resources are used most advantageously, planning for recreation must be an integral part of the comprehensive planning for all community services.

The need for planning is greatest in the urban and urbanizing areas of the State. The larger communities, especially those with populations in excess of 15,000, require continuing planning programs for the effective delivery of recreation services. Moreover, comprehensive community development planning is mandated by many federal assistance programs. To date only half of the communities over 15,000 have filed completed recreation plans with the Department of Community Affairs.

The size of the recreation delivery system and financial resources generally determine the need and capability for planning in those communities with populations under 15,000. Smaller communities may find their planning needs best served through cooperative planning agencies, or through technical planning assistance from the Department of Community Affairs.

The county government should serve as a catalyst, coordinator and clearinghouse for all community recreation, conservation and open space planning, irrespective of community size. The capabilities of these agencies also permit them to provide technical assistance to their political subdivisions, coordinate the overall planning for the county and provide central leadership in determining regional needs and priorities.

Maximizing Recreation Opportunities

In Pennsylvania, the role of local government in providing recreation as a basic public service has evolved, for the most part, during this century. Left unattended, this service will disappear or be crowded out by other priority issues and critical needs. In order to ensure that future generations will have a decent living environment and will be able to enjoy the natural beauty of the Commonwealth, local governments must act now so that the resources we have inherited are passed on to future generations in as good if not better condition than we received them. To accomplish this goal, local governments must begin now to provide better parks and recreation services.

The provision of recreation opportunity is far more complex than the mere provision of facilities, lands and programs to satisfy people's recreation interests. Recreation does not occur in a vacuum; it is a public service, but only one of many. Therefore, recreation must be regarded in a broader physical, social, economic and political context and related to the entire spectrum of community services. Only from this perspective can resource potential be developed to the greatest degree of utility.

Maximizing the Benefits of Federal and State Programs

In our complex and technical society there are countless needs, but there are also many governmental programs to help meet these needs. Many of these programs provide for greater recreational opportunity, but others aggravate existing problems or create new ones. Therefore, a comprehensive effort to enhance recreation opportunity must be concerned not only with those programs which provide opportunity but also with coordination between programs in order to maximize opportunities and minimize detrimental effects.

In attempting to obtain the maximum possible benefits from all Federal, State, and local resources, local governments will have to work with other levels of government. This will require each local government to have a comprehensively planned course of action which utilizes all applicable sources of aid. Possibilities include revenue sharing, urban renewal, housing and community development, health programs and programs for special groups to meet the public needs for recreation. The assistance of Federal and State agencies will also have to be sought to ensure that projects and programs are designed, constructed and operated to improve the quality of life for everyone.

Inter-Agency Cooperation

Much can be accomplished through maximizing the benefits of Federal and State programs. However, this cooperation must extend beyond just utilizing the financial resources.

Coordination among local governments and with other governmental, public, private and non-profit groups is essential if access to recreation and leisure opportunities is to be improved for all Pennsylvanians. Through such mechanisms as councils comprised of recreation, planning, education, business, and professional leaders and by providing information services to private groups, on-going coordination can be maintained.

Improved coordination between and among agencies must include improved communications. Ideas, research findings, methods and new programs must be shared to help all groups to understand and serve better the recreation needs of the public. Technical assistance, personnel and facilities can also be shared in the spirit of mutual assistance and cooperation for the public good. A harmonious climate and coordinated action for the economic provision of more diversified recreation opportunities will result from these actions.

Research Needs

The realization of the goal of maximizing recreation opportunities necessitates a great understanding of the many facets of recreation participation and the recreation experience. Better information dealing with recreation preferences, cost accounting, resource capability, design, safety, vandalism, facility and program standards, recreation participation by the handicapped and other special groups, school-community operations, open space needs and a host of other basic and related recreation problems is needed. Consequently, an expanded and coordinated research program to study these subjects is required if local governments are to maximize the effectiveness of their recreation services. The financial commitment to recreation is large. To assure optimal use of public funds, agencies need to conduct appropriate research, participate in research projects conducted by other agencies and share in the dissemination of research findings from which sound public policy decisions can be made. Private industry, business and philanthropic foundations should also recognize legitimate recreation research needs and provide technical and financial assistance in appropriate situations.

Education

As society becomes more urbanized and man loses daily contact with the natural environment, the values of respect and appreciation for natural resources become increasingly important. The schools, along with other recreation and conservation agencies, can play an important role in instilling these values through environmental and interpretative education programs which inseminate an understanding of man's

impact on his environment and implant an attitude of stewardship for all natural resources. Modern life has also provided man with increasing amounts of leisure time. The purposeful and enjoyable use of this time is dependent on the skills and appreciations the individual has learned. In their role to prepare students for citizenship, the schools can serve an important community function by helping them to develop an appreciation for and providing them with the opportunity to participate in a broad range of activities, including music, art, dance, drams, crafts and lifetime sports.

The growing participation and investment in recreation requires that all agencies cooperate to ensure the most efficient utilization of all resources in order to best serve the public. The schools represent a large public financial investment and have at their disposal a wide variety of facilities, including meeting rooms, auditoriums, gymnasiums, swimming pools, courts and fields. Their centralized location makes them convenient and logical places to serve many neighborhood and community needs. Furthermore, many school facilities are under-utilized during non-school hours and the summer months. Maximizing the use of physical and financial resources to serve public needs will require a more elevated spirit of cooperation between the schools and other local agencies.

The implementation of school-community cooperation will be dependent on the organization, needs and resources of each community. The administrative options which should be considered include municipal administration of all community recreation services, school administered community recreation services, or a combined school-community recreation and conservation board.

Planning, Acquisition and Development

The role of government in recreation is to provide services to people. To fulfill this role government must be sensitive and responsive to the needs of its citizens. The expenditure of large amounts of public funds for recreation necessitates citizen involvement in the planning, acquisition and development of facilities and programs. Through advisory boards and public hearings, citizens can provide useful insight into what services they want and where those services will have the most beneficial impact on their lives.

Many agencies and groups provide recreation areas, facilities and programs. Typically, their actions are undertaken independently without sufficient concern for the cumulative effects. Therefore, a local government must not only involve their own citizens but also must assume a leadership role in coordinating its efforts with other local agencies. Through the combined efforts of municipal governments and planning, quasi-public, and private agencies, acquisition and development efforts can be interfused to optimize accessibility to recreation resources and opportunities.

Coordination of planning efforts and programs at the local level is of vital importance. However, planning must extend beyond city limits or township lines. Planning programs must encompass the broader perspectives of multigovernmental, county and regional needs. Trail and park systems, for example, must be conjunctive regardless of jurisdictional boundaries. Only through a multi-lateral approach can an entire recreation delivery system organize and utilize effectively the limited financial and physical resources from which recreation opportunities for all Pennsylvanians will come.

D-handicapped needs

NEEDS OF THE HANDICAPPED

Introduction

One person in about every eight households in Pennsylvania is handicapped. These people include those who are confined to a wheelchair; who must use braces, crutches, or a walker; who are blind or nearly blind; who are deaf or nearly deaf; who have a coordination disability such as palsy; who have a heart or lung disability that limits their activity; who are emotionally disturbed; or who are mentally retarded.[1] (See Table 1)

While it is certainly true that many people with a disabling condition simply cannot participate in certain activities, or at least cannot participate as these activities would usually be played, it is probably equally true that the hancicapped person, if given the opportunity to participate in activities of which he is capable and in which he is interested, will want to participate to the same degree that the general population participates in the activities to which they have access and in which they are interested.

So the basic question in determining the handicapped person's recreational needs is virtually identical to that of the general population, i.e., what the handicapped individual wants to do and whether the opportunity is available to him. In order to deal with this question, a special survey was designed.

The survey sample is 594 persons who were contacted by telephone. Answers were given by the handicapped themselves, except when they were unable to come to the phone. In addition to the 19 outdoor activities on which the rest of the plan focusses, a selected list of other, more passive, essentially indoor activities was

[1]This group definition is also restricted to those who have had one of these disabilities for at least a year.

Table 1.

PRESENCE OF DISABLED OR HANDICAPPED PERSONS IN PENNSYLVANIA HOUSEHOLDS, 1974

Condition	Households	Disabled individuals	
Total	100.0%		
		Percent	Number in sample
No disability present	87.9		
Disability present	12.1	100.0	594
Confined to a wheelchair	1.0	9.1	54
Required to use braces, crutches, or a walker	1.9	16.3	97
Blind or nearly blind	1.7	15.3	91
Deaf or nearly deaf	1.7	15.0	89
Coordination disability such as palsy	1.3	10.8	64
Heart or lung disability which limits activity	7.1	49.8	296
Emotionally disturbed	0.4	4.0	24
Mentally retarded	0.5	3.7	22

included. Specifically, the questions deal with what kinds of activities the handicapped person has been participating in, what kinds of activities he would like to be involved in, and what factors have been limiting or preventing his participation.

What the Handicapped Do

Of the 26 activities specified in the survey the highest percentages of handicapped people participated in sightseeing or driving for pleasure (41.6%), picnicking (38.0%), attending movies, plays, or concerts (28.8%), and swimming (20.5%). Six other activities were participated in by more than 10% of the handicapped. These activities are: participating in groups for cards and other games (19.7%), visiting museums or zoos (15.7%), attending sporting events (15.5%), participating in social or discussion groups (13.6%), hiking or nature walks (13.6%), and fishing (10.8%).

Compared with the general population, participation rates among the handicapped are low. According to a comparable survey of the general population, participation rates are much lower for the handicapped in each of the 19 outdoor recreation activities. For example, rates for sightseeing or driving for pleasure and picnicking, the activities involving the greatest percentage of handicapped individuals, are still 30.9% and 31.4% less than rates for the general population. For outdoor sports, like tennis or baseball, participation rates for the general population are five to ten times higher. (See Table 2)

Mentally Retarded

The greatest amount of recreation participation among the handicapped occurs among the mentally retarded. In fact, in six of the outdoor activities—swimming, basketball, baseball or softball, picnicking fishing, and camping—participation rates are comparable to those of the general population. Compared with the other seven handicapped groups, the mentally retarded have higher participation rates in 20 of the 26 activities, and 15 of the 19 outdoor activities.

Emotionally Disturbed

Next to the mentally retarded, the emotionally disturbed are the most active recreationally. The highest participation rates of this group occur in attending plays and concerts (41.7%), picnicking (37.5%), swimming (29.2%), sightseeing or driving for pleasure (29.2%), and bicycling, hiking or nature walks, visiting museums or zoos, and participating in groups for cards or other games (each 25%).

Confined to a Wheelchair

Individuals confined to a wheelchair have participation rates lower than the rates for all handicapped individuals in each of the 26 activities with the single exception of participating in groups for cards or other games. Among individuals confined to a wheelchair, the activities with the highest participation rates are sightseeing or driving for pleasure (33.3%), picnicking (31.5%), participating in groups for cards or other games (22.2%), attending movies, plays, or concerts (20.4%), and visiting museums or zoos (14.8%).

Braces, Crutches, or a Walker

Among individuals required to use braces, crutches, or a walker, the participation rates are lower than the rates for all handicapped individuals in each of the 26 activities except for sightseeing or driving for pleasure and participating in groups for arts and crafts. The rates are also higher for horseback riding, ice skating, and snowskiing, but the sample sizes involved are so small, on the order of 1 or 2 individuals, that the data cannot be considered significant. Among individuals required to use braces, crutches, or a walker, the activities with the highest participation rates are sightseeing

Table 2.
ANY TIME DURING YEAR PARTICIPATION, POPULATION 5 AND OVER, 65 AND OVER, AND INDIVIDUALS WITH SELECTED DISABILITIES, PENNSYLVANIA, 1974
(Percent of persons)

	Total population		Any	Wheel	Braces	Blind or	Deaf or	Coor-	Heart	Emo-	Mentally
	5 and over	65 and over	listed disability	chair	crutch walker	nearly blind	nearly deaf	dination disab.	lung disab.	tionally disturb.	re- tarded
Average	30.5	7.7	11.3	6.7	9.7	8.7	10.8	12.1	10.9	14.4	21.5
Bicycling	47.9	3.1	9.8	0.0	5.2	6.6	6.7	12.5	10.1	25.0	22.7
Swimming	66.7	11.7	20.5	7.4	16.5	14.3	21.3	26.6	17.6	29.2	63.6
Sightseeing or driving for pleasure	72.5	51.1	41.6	33.3	50.5	36.3	40.4	37.5	43.6	29.2	50.0
Basketball	22.2	0.0	4.2	3.7	1.0	4.4	4.5	6.2	2.0	4.2	18.2
Baseball or softball	32.4	1.1	5.1	1.9	2.1	4.4	2.2	7.8	3.7	8.3	27.3
Hiking or nature walks	40.9	11.6	13.6	1.9	8.2	12.1	14.6	6.2	14.2	25.0	27.3
Picnicking	70.6	35.3	38.0	31.5	36.1	27.5	39.3	35.9	35.5	37.5	77.3
Tennis	24.0	1.2	2.2	0.0	2.1	2.2	0.0	1.6	2.7	4.2	4.5
Fishing	31.9	8.4	10.8	3.7	4.1	9.9	11.2	12.5	11.8	12.5	27.3
Golf or miniature golf	29.0	5.1	6.2	3.7	3.1	4.4	4.5	9.4	6.1	4.2	9.1
Football	16.5	0.0	1.9	1.9	0.0	2.2	3.4	3.1	1.0	0.0	4.5
Off-road motorcycling or riding snowmobiles	12.0	0.3	2.7	0.0	2.1	1.1	4.5	4.7	2.4	4.2	0.0
Camping	26.3	3.8	8.1	0.0	6.2	5.5	10.1	9.4	6.8	16.7	22.7
Boating, canoeing or waterskiing	30.7	7.8	9.3	1.9	8.2	8.8	7.9	6.2	10.8	12.5	18.2
Hunting or sport shooting	14.0	5.1	4.7	0.0	2.1	3.3	6.7	4.7	5.7	0.0	4.5
Horseback riding	11.1	0.7	2.5	0.0	3.1	3.3	1.1	1.6	1.7	8.3	0.0
Ice skating	21.2	0.2	2.9	0.0	3.1	3.3	2.2	0.0	2.4	8.3	4.5
Street hockey	4.6	0.0	0.8	0.0	2.1	0.0	0.0	0.0	0.3	4.2	9.1
Snow skiing	4.9	0.0	0.5	0.0	1.0	2.2	0.0	0.0	0.0	0.0	0.0
Bowling	na	na	7.9	3.7	6.2	11.0	11.2	10.9	4.1	8.3	31.8
Visiting museums or zoos.	na	na	15.7	14.8	13.4	11.0	10.1	15.6	16.9	25.0	22.7
Movies, plays, concerts	na	na	28.8	20.4	23.7	13.2	25.8	34.4	29.1	41.7	54.5
Attend live sporting events	na	na	15.5	11.1	12.4	18.7	15.7	15.6	15.2	8.3	18.2
Groups for cards, games	na	na	19.7	22.2	19.6	9.9	19.1	25.0	17.9	25.0	18.2
Groups for arts and crafts.	na	na	6.4	3.7	9.3	2.2	2.2	7.8	5.7	20.8	18.2
Social or discussion groups	na	na	13.6	7.4	10.3	9.9	15.7	10.9	15.5	12.5	4.5

na: Not asked in main survey

or driving for pleasure (50.5%), picnicking (36.1%), attending movies, plays, or concerts (23.7%), participating in groups for cards or other games (19.6%), and swimming (16.5%).

Blind or Nearly Blind

The blind or nearly blind most frequently participate in the following activities: sightseeing or driving for pleasure (36.3%), picnicking (27.3%), attending sporting events (18.7%), swimming (14.3%), attending movies, plays, or concerts (13.2%), and hiking or nature walks (12.1%). Compared with people with other handicaps, the blind or nearly blind have much higher participation rates in bowling and attending sporting events.

Deaf or Nearly Deaf

The deaf or nearly deaf have participation rates which are higher than the rates for all handicapped individuals for swimming, basketball, hiking or nature walks, picnicking, fishing, football, off-road motorcycling or riding snowmobiles, camping, hunting or sport shooting, bowling, attending live sporting events, and participating in social or discussion groups. The highest participation rates for this group are in sightseeing or driving for pleasure (40.4%), picnicking (39.3%), attending movies, plays, or concerts (25.8%), swimming (21.3%), participating in groups for cards or other games (19.1%), attending live sporting events (15.7%), participating in social or discussion groups (15.7%), and hiking or nature walks (14.6%).

Coordination Disability

Among individuals with a coordination disability such as palsy, activities for which the participation rates are higher than for all handicapped persons are bicycling, swimming, basketball, baseball or softball, fishing, golf or miniature golf, football, off-road motorcycling or riding snowmobiles, camping, bowling, attending movies, plays, or concerts, attend-

ing live sporting events, participating in groups for cards or other games, and participating in groups for arts and crafts. The activities with the highest participation rates are sightseeing or driving for pleasure (37.5%), picnicking (35.9%), attending movies, plays, or concerts (34.4%), swimming (26.6%), and participating in groups for cards or other games (25.0%).

Heart or Lung Disability

Activities among individuals with a heart or lung disability for which participation rates are higher than for all handicapped individuals are bicycling, sightseeing or driving for pleasure, hiking or nature walks, tennis, fishing, boating, canoeing or waterskiing, hunting or sport shooting, visiting museums or zoos, attending movies, plays, or concerts, and participating in social or discussion groups. The activities with the highest participation rates are sightseeing or driving for pleasure (43.6%), picnicking (35.5%), attending movies, plays, or concerts (29.1%), participating in groups for cards or other games (17.9%), swimming (17.6%), and visiting museums or zoos (16.9%).

Summary

As has been seen, individuals who are mentally retarded or emotionally disturbed are considerably more active than are individuals with other disabling conditions. No doubt, the higher participation rates for the mentally retarded and the emotionally disturbed result in part from the absence of physical limitations. However, it should also be noted that these higher participation rates probably also reflect a greater concentration of younger people in these two groups because the other disabling conditions are more closely related to aging and consequently include a concentration of elderly persons. Among all handicapped or disabled individuals surveyed, 41.2% were at least 65 years of age and nearly two-thirds (63.3%) were at least 55 years of age. Hence, the reduced recreation participation among disabled persons compared to the general population would result not only from the effect of their disability but also from the effect of aging. However, there are other factors which limit participation which will be discussed subsequently.

What the Handicapped Want To Do

Table 2 shows that the rates of participation for the handicapped are lower than those of the general population in each of the 19 outdoor activities. However, these statistics do not show the degree to which the handicapped who would like to participate have been discouraged by external causes from participating in activities in which they are interested. In order to measure this, the number of interested nonparticipants in each activity has been taken as a percentage of those who have been participating and then compared with percentages derived the same way for the general population.[2]

Tennis (92.3% to 47.8%), football (36.4% to 19.4%), swimming (16.4% to 4.6%), and baseball or softball (20.0% to 11.8%) are activities in which unsatisfied interest among the handicapped is much greater than among the general population. Four other activities—boating, canoeing, water skiing (21.8% to 13.9%), golf or miniature golf (32.4% to 25.9%), fishing (31.3% to 28.6%), and picnicking (4.9% to 4.5%)—also show higher rates. Only one activity—camping (21.5% to 53.3%)—has a much lower rate.

The levels of unsatisfied recreation interest (interested nonparticipants as a percentage of current participants) indicate which activities have the potential for the greatest percentage increases in participation. However, for many of the listed activities the participation rates of disabled or handicapped individuals are so small that a high percentage increase in participation would represent only a small numerical increase. It is worthwhile, therefore, to examine the actual numbers of handicapped individuals who are interested nonparticipants in each activity. For each activity the number of interested nonparticipants is rather small. The activities with the highest numbers of interested nonparticipants are swimming (3.4% of all handicapped persons are interested nonparticipants), fishing (3.4%), visiting museums or zoos (3.2%), attending live sporting events (3.2%), bowling (2.9%), and participating in groups for arts and crafts (2.5%).

The Role of Families, Friends, and Groups

Most people, and adults in particular, prefer not to participate in recreational activities alone, but it is reasonable to assume that the handicapped are more dependent on their families and friends and on organized groups for access to and from and for participation among than the population in general. Consequently, the handicapped were asked in the survey with whom they went when they last participated in an activity.

The vast majority of the handicapped went with their family or friends rather than alone or as a part of an organized group. Only when participating in social discussion groups or in arts and crafts groups did the greatest numbers of handicapped persons not go with their families or close friends. Furthermore, among the 26 activities there are only five in which more then 10% of the handicapped went alone to participate: bicycling (36.2% went alone), horseback riding (20.0%), off-the-road motorcycling or snowmobiling (18.8%), hiking or nature walks (17.5%), and hunting or sport shooting (11.1%). It should be noted, however, that the sample

[2]See Appendix 3, *Pennsylvania Recreation Survey*, Table 18, p. 29.

sizes for horseback riding and off-the-road motorcycling or snowmobiling are very small.

Other than participating in a social or discussion group and an arts and crafts group (62.5% and 50.0% respectively went with an organized group), only three other activities were facilitated to a significant degree (i.e. 20%) by an organized group, club, or team. These are groups for cards and other games (34.5%), basketball (28.0%), and bowling (27.7%). These figures would tend to indicate that either the handicapped prefer to participate mainly with members of their family and their close friends or, more likely, that there is a lack of organized activity available to them.

Factors Limiting Participation

In order to determine the kinds of external things that deter them from participating in activities in which they could and would like to participate, the handicapped were asked to rate as very important or not very important five obstacles which are considered to be major problems. They were also asked whether they generally prefer to participate with other people with similar disabilities or with the public in general.

Difficulties Associated with Transportation

Handicapped persons who said that difficulties associated with transportation are very important are greatest among the blind or nearly blind (53.8%), individuals confined to a wheelchair (53.7%), those who are required to use braces, crutches, or a walker (45.4%), and individuals with a coordination disability such as palsy (43.8%). Handicapped individuals to whom difficulties associated with transportation are relatively not very important are individuals with a heart or lung disability which limits their activity (58.4% said difficulties associated with transportation are not very important), the mentally retarded (54.5%), the deaf or nearly deaf (53.9%), and the emotionally disturbed (50.0%).

Lack of Special Programs for the Handicapped

The greatest percentages of handicapped individuals who said that the lack of special programs is very important occurs among the mentally retarded (57.1%), individuals with a coordination disability such as palsy (48.4%), and individuals confined to a wheelchair (46.3%). Handicapped individuals to whom the lack of special programs is relatively not very important are the emotionally disturbed (54.2% said that the lack of special programs is not very important), individuals with a heart or lung disability (48.3%), and the deaf or nearly deaf (48.3%).

Table 3.
FACTORS LIMITING PARTICIPATION AMONG THE HANDICAPPED

	Very Important	Important	Not Very Important
Architectural or physical barriers	39.4	11.3	49.3
Transportation difficulties	37.0	9.0	53.1
Lack of special programs	36.5	18.6	44.9
Fees and other costs	37.2	19.3	43.6
Attitudes and prejudices of non-disabled persons	30.5	16.4	53.1

For each of the five factors listed above in Table 3, about 50% rated them as very important or important deterrents to their recreational activity. Only 6.3% of the handicapped prefer to participate with other people with similar disabilities rather than with the general public.

Architectural or Physical Barriers

Obviously, depending on the nature of the disability, there is considerable variation in the importance of architectural barriers. The greatest percentage of individuals rating architectural barriers as very important occurs among individuals who are confined to a wheelchair (63.0%), who are required to use braces, crutches, or a walker (52.6%), or who have a coordination disability such as palsy (46.9%). Handicapped individuals to whom architectural barriers are relatively not very important are the emotionally disturbed (70.8% said that architectural barriers are not very important), the mentally retarded (63.6%), and the deaf or nearly deaf (60.7%).

Fees and Other Costs Associated with Recreation Activities

The greatest percentages of handicapped individuals who said that fees and other costs are very important in preventing them from participating in recreation activities occur among individuals with a coordination disability such as palsy (47.6%), individuals required to use braces, crutches, or a walker (42.6%), and the mentally retarded (40.9%). Handicapped individuals to whom fees and other costs are relatively not very important are individuals who are emotionally disturbed (54.2% said that fees and other costs are not very important) and individuals confined to a wheelchair (50.0%).

Attitudes and Prejudices Toward the Handicapped

By far the greatest percentages of handicapped indi-

viduals who said that attitudes and prejudices of nondisabled people are very important in preventing them from participating in recreation activities occur among the mentally retarded (63.6%) and individuals with a coordination disability such as palsy (44.4%).

Participating with the Public

Among all disabled or handicapped individuals, only 6.3% said that they generally prefer to participate along with other people with conditions similar to their own rather than with the general public. The greatest percentages of handicapped individuals who said they do, occur among the mentally retarded (36.4%), the emotionally disturbed (12.5%), and individuals with a coordination disability such as palsy (11.1%). However, it is clear that the great majority of handicapped individuals prefer not to have separate recreation facilities and programs.

It should be pointed out that the responses for an emotionally disturbed or mentally retarded individual were not given by the individual himself but by another member of his household. Since the mentally retarded show the highest percentages who said that the lack of special programs is very important, that attitudes and prejudices of nondisabled people are very important, and that they generally prefer to participate with other people with the same condition, it is possible that these attitudes reflect the feelings of the families of the mentally retarded rather than of the mentally retarded themselves.

Recreational Needs of the Handicapped

If a person did not play basketball as a youngster, it is very unlikely he will begin playing as an adult because he probably has no desire to play and he certainly would lack the skills. Therefore, the existence or absence of basketballs and basketball courts is a matter of no consequence to his personal recreational needs. Similarly, a consideration of the recreational needs of the handicapped is not concerned with what the handicapped do not want to or cannot do. It is, however, very much concerned with what the handicapped person would do if barriers which have been limiting or preventing him from participating in activities which he would enjoy were removed.

As has been seen elsewhere in this chapter, many of the barriers to recreation participation are not limited only to the handicapped. However, the significance of these barriers is magnified for this group when compounded with their physical disabilities. Lack of a car reduces recreational possibilities for anyone, but particularly for a handicapped person and even more particularly if he lives in a city. Twelve of the 26 activities included in the survey had absolutely no participation among handicapped persons without access to a car. Low income is another factor which limits recreational possibilities. And since 49% of the handicapped in the survey sample were 65 or older, they share many of the same kinds of problems that the elderly in general confront, for example, facilities that have too many stairs to climb.

But, although these factors point to, they do not identify the central problem. The handicapped have not received enough attention in recreational programming. If a facility has too many stairs that means that the person who uses crutches or the elderly person was not taken into account when the facility was designed. The handicapped person's disproportionate dependence on his family and close friends for recreational company indicates that there are not enough group activities which include the handicapped. While it is generally true that the handicapped have a greater need to be a part of a group or party of people, it is also generally true that this need is common to all people regardless of their physical condition.

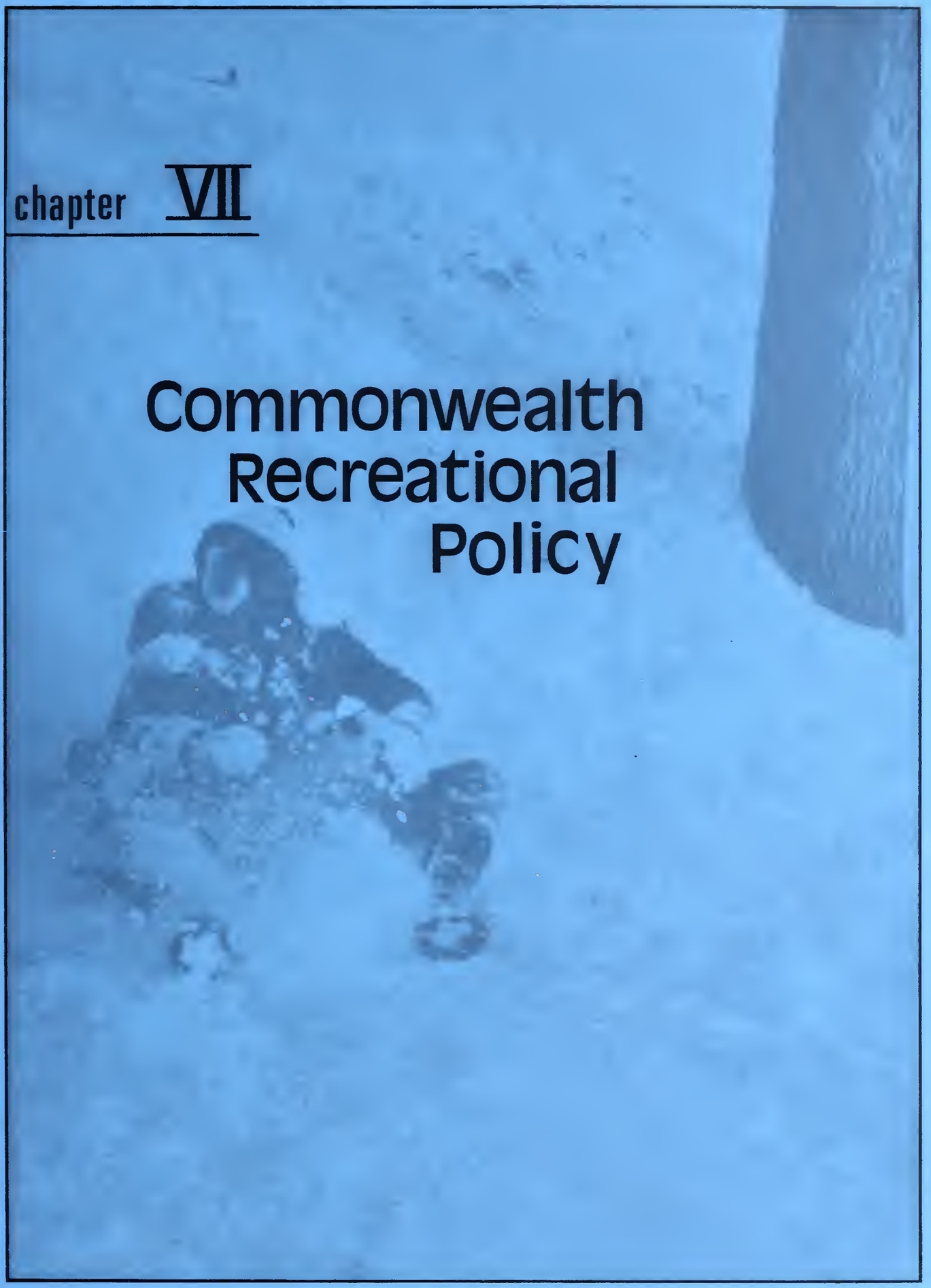
The organization of groups that encourage participation by the handicapped through energetic promotion and attentive programming is needed. Organized groups can structure recreation programs that meet day-to-day needs through organized outings and providing group transportation. They also make possible such benefits as reduced rates at ballgames, concerts, the theatre and for mass transit.

However, such groups should not be organized solely for the handicapped. The handicapped do not prefer exclusive clubs. Rather, a major problem has been that existing organizations, either through negligence or other reasons, have not provided, to a great enough degree, recreational opportunities for the handicapped. This does not mean that new groups and new programs are not needed at all.

In many communities school facilities are underused in the evening. Likewise, mass transit systems do not run all their buses or trolleys after the evening rush hour. If these two elements were blended properly, a program that could be kept open at little extra expense to the school district could be made available. These elements would also be applicable on weekends. The major need, then, is not for new facilities, but for better programming.

chapter VII

Commonwealth Recreational Policy



Chapter VII

COMMONWEALTH RECREATION POLICY

INTRODUCTION

Although roles and responsibilities are legislatively mandated, the programs that extend from them must be administered with discretion because resources, economic conditions, social values—nature and culture—are in perpetual flux. Polices are the instruments through which discretion guides the daily administration of any program, the instruments that play the melody. But while policies reflect change they also must iterate common sense when pressures conflict. To state that, "It is Commonwealth policy to have a supply of clean, unspoiled water. . . ", seems to be almost childishly simple except that 5,000 miles of Pennsylvania's streams and rivers are so fouled that they cannot support fish life. Consequently, the policy statement is necessary and will be reiterated until pollution of water ceases to be a possibility.

The policy statements that follow are of four kinds. The first set, "Policies Which Pertain to People," address issues concerning human rights and the responsibility of government to provide adequate recreational opportunity for all.

"Policies Which Pertain to Planning," the second set of statements, articulate the Commonwealth's commitment to maintain a coordinated, comprehensive, ongoing planning effort.

The next section, "Policies Which Pertain to Physical Resources," forwards policies that apply to recreation resources and the programs and activities that are related to them. Many of these policies deal with specific issues which were discussed in the Needs Chapter.

The last set of policies articulates those that " . . . Pertain to a Balanced System." Basically, these statements reiterate the Commonwealth's intention to coordinate the major aspects of the delivery of recreation services.

POLICIES WHICH PERTAIN TO PEOPLE

1. Recreational Opportunity

It is Commonwealth policy to strive for the provision of recreational opportunities for every citizen of the Commonwealth as well as visitors and tourists, in both urban and non-urban settings.

It is the inherent and constitutional right of every citizen of the Commonwealth to have access to the natural, historic, scenic, and aesthetic resources of the State. The quality of land and water resources and recreation programs is fundamental to the health and welfare of the citizens of Pennsylvania. As Commonwealth agencies increase the opportunity for recreation through the development of recreation areas and the conservation and restoration of the State's natural recreation resources, future project proposals and programming will be oriented primarily toward meeting the recreational needs of all citizens, especially those who, heretofore, have been denied an equal opportunity to participate.

It is recognized that the traditional non-urban natural environment kind of recreation area is, in the practical sense, inaccessible to many. However, since urban recreation needs are frequently different because of cultural preferences and recreational backgrounds, the Commonwealth must assist other agencies in providing the kinds of facilities which it does not provide but which are needed in urban areas.

One of the principal findings of this plan is that the special needs of the aged, poor, minorities, and handicapped must be met through a combination of new and imaginative recreation facilities, special programming and conscientious maintenance. Because local government agencies and quasi-public and private agencies are in closer physical proximity to the disadvantaged, these agencies will continue to have primary responsibility for providing the administrative structure for meeting the needs of the disadvantaged. While local agencies are in the tactical position to deal with these needs, the magnitude of the problem is often much greater than their financial and administrative capabilities. Therefore, technical and financial assistance from the State and Federal Governments must occur along with the strengthening of local government agencies' administrative capabilities.

2. Accessibility

It is Commonwealth policy to strive for improvements in accessibility to recreation areas, facilities, and programs.

For all residents of Pennsylvania recreation oppor-

tunity is inseparably linked to accessibility. Improving recreation opportunity can be accomplished by providing "close-in" recreation areas, by increasing transportation alternatives for less mobile residents, and by expanding the public's knowledge of what recreational opportunities are available. For many, high transportation costs preclude visitation of distant recreation areas. Pennsylvania's Recreation Survey (1974) indicates clearly that participation is more sensitive to car ownership than to income. If recreation opportunities are to be strengthened, low cost transportation must be made available, especially for low income, handicapped, and elderly people.

3. Information Dissemination

It is Commonwealth policy to increase the effectiveness with which information about state operated facilities and programs is disseminated.

Pennsylvania's Recreation Survey indicates clearly that the general public is poorly informed of the presence, location, and diversity of recreational resources. The Commonwealth can improve the utilization of State facilities by simply increasing public knowledge about them.

4. Non-Discrimination

It is Commonwealth policy that no discrimination on the basis of color, creed, race, national orgin, age, sex, income, or physical or mental disability will be allowed in access to or use of any recreation area or facility and that the State will withhold financial and technical assistance from local governments or private groups which discriminate in the provision of any public service.

This is a specific reinforcement of the Commonwealth's continuing policy of non-discrimination. This reinforcement becomes important in light of data showing lower rates of recreation participation among the elderly, poor, minority groups, and handicapped. The Commonwealth's posture is to provide the broadest possible range of recreational opportunity so that individuals may choose those in which he wants to participate.

5. Recreation Education

It is Commonwealth policy to encourage school districts to provide to all members of the community educational opportunities that cultivate the physical and mental skills required for lifetime participation in recreational activities.

In a recent opinion poll conducted by the National Education Association, worthy use of leisure time was listed by teachers throughout the country as one of the least implemented basic elements of education. It would appear that there has been a lack of understanding of the benefits and importance of the constructive use of leisure time in the educational community. This policy statement affirms the importance and value of recreational education for everyone.

POLICIES WHICH PERTAIN TO PLANNING

6. Scope Of Planning

It is Commonwealth policy to plan comprehensively for the provision of a balanced system of both public and private recreation opportunities to meet the needs of Pennsylvanians as well as visitors and tourists.

In the past, Pennsylvania recreation plans have been limited largely to the opportunities provided by the public sector. With this policy statement, the Commonwealth specifically recognizes that almost 50% of all recreational activity takes place at private areas and facilities. Future planning endeavors will make greater efforts to incorporate the needs and perspectives of private enterprise.

The Commonwealth also specifically recognizes that the movement toward comprehensive planning will entail a much greater effort to incorporate data as well as policy considerations from adjoining states.

7. Continuing Planning Commitment

It is Commonwealth policy to maintain a continuing recreation planning effort.

The Commonwealth recognizes the value of a sustained planning effort in terms of long run cost savings, program consistency, and responsiveness to needs and trends.

8. Interagency Approaches

It is Commonwealth policy to conduct recreational planning through the Interagency Recreation Planning Committee.

Membership on this Committee is by appointment of the chief administrator of the respective agencies.

a) Governor's Office of State Planning and Development
b) Pennsylvania Department of Education
c) Pennsylvania Department of Public Welfare
d) Pennsylvania Department of Transportation
e) Pennsylvania Department of Community Affairs
f) Pennsylvania Department of Environmental Resources
g) Pennsylvania Fish Commission
h) Pennsylvania Game Commission

i) Pennsylvania Historical and Museum Commission
j) Pennsylvania Department of Commerce

The responsibility for preparing the Commonwealth's Recreation Plan is shared by these agencies. The Office of State Planning and Development is the coordinating agency. The function of the Committee is to provide interdisciplinary understanding, coordination, and effective recreation planning within the Commonwealth.

9. Regional And Local Recreation Planning

It is Commonwealth policy to utilize and support regional and local planning agencies as vehicles for expressing needs from those perspectives and as vehicles for public discussion on pertinent policy issues.

The Commonwealth endeavors to structure meaningful planning opportunities for the expression of regional agencies' perspectives on the State Recreation Plan; also, the Commonwealth supports local planning agencies in the preparation of local, cooperative plans.

POLICIES WHICH PERTAIN TO PHYSICAL RESOURCES

10. Provision Of Land Areas

It is Commonwealth policy to acquire or to assist other levels of government in their acquisition of lands and waters which are identified as having significant recreational, natural, scenic, and aesthetic values and those areas which are needed to protect existing public recreation resources from encroachment.

State parks, historic sites, forest lands, game lands, fishing and boating access areas, and local recreation areas are acquired on the basis of their unique characteristics, locations, and in order to maximize specific recreation opportunities.

11. Provision Of Facilities

It is Commonwealth policy to provide, assist, and/or encourage the development and operation of park and recreation facilities throughout the Commonwealth.

The selection and diversity of location and type of facility are determined on the basis of need. Parks are designed to conserve the natural resources of a particular site. Low intensity recreation areas such as State forests and game lands are commonly designed with the minimal man-made accommodations necessary for general health and safety. High intensity recreation facilities are designed to accommodate as much of the recreation demand as possible.

12. Preservation Of The Commonwealth's Historical And Cultural Heritage

It is Commonwealth policy to identify historical, archeological, architectural and cultural sites throughout the State; to protect and promote the preservation of significant historical and cultural sites for the present and future generations; and to assist local governments and non-profit organizations in accomplishing the same.

As attention is focused on the Bicentennial Celebration, Pennsylvanians are reminded that Philadelphia was the birthplace of the Nation and that the Commonwealth has a priceless endowment of historic sites which are part of the national heritage. Pennsylvania has over 400 sites on the National Register of Historic Places and many more on the state inventory of historic sites. Through the National Historic Preservation Act of 1966 (Public Law 89-665), the Commonwealth has been making every effort to cooperate with Federal and local agencies, as well as private historic preservation groups to prevent the State's cultural heritage from being lost through neglect or destroyed in the name of economic progress.

13. Increased Recreation Opportunity For The Handicapped

It is Commonwealth policy to increase the number and diversity of recreation experiences which can be enjoyed by handicapped people.

Pennsylvania and its local governments are required to provide structural modification to public buildings and facilities to accommodate use by handicapped people. However, simple structural modifications do not fulfill the responsibility to provide adequate recreation opportunities for the handicapped. The Commonwealth must take further actions to meet the actual needs of the handicapped at State-operated facilities; it must stimulate local response to these needs through technical and financial assistance programs to local governments; and, it must encourage private enterprise to develop recreation opportunities for handicapped people.

14. Environmental And Interpretative Education

It is Commonwealth policy to provide and to encourage others to provide environmental and interpretative education programs.

Programs offered by the Commonwealth stress the importance of conservation of natural and historic resources and the interrelationships between man and his environment. These programs are designed to

promote a personal sense of responsibility for the environment by influencing public understanding of ecological values.

15. Water Quality

It is Commonwealth policy that Pennsylvanians are to have a supply of clean, unspoiled water to meet their water-related recreation needs.

An adequate supply of high quality water is essential to meeting recreation needs, as well as industrial and domestic needs. Commonwealth water quality policy applies not only to this recreation plan but is fundamental to all Commonwealth plans.

16. Fisheries Resources

It is Commonwealth policy to manage the fisheries resources in a manner which provides recreation opportunities to all fishermen, from the most dedicated to the occasional.

The Commonwealth will provide, through stocking and adequate access to fishing waters, fishing opportunities throughout the State with special emphasis on those resources which serve the metropolitan areas. To meet the needs of the dedicated angler, the Commonwealth will continue to foster the improvement of aquatic habitats to increase the natural reproduction and growth of all recreationally desirable species of fish. Propagation practices will be consistent with sound ecological principles and sociological considerations.

17. Wildlife Resources

It is Commonwealth policy to manage the wildlife resources in a manner which protects natural predators as well as rare and endangered species, provides for the full diversity of species of whichPennsylvania is ecologically capable, and fosters a naturally bountiful supply of game which can be harvested in recreational hunting.

Artifical propagation may be used in selected areas of the State where hunting pressure exceeds the natural reproduction of game species. Propagation practices will continue to be consistent with sound ecological practices and sociological considerations.

18. Wild And Natural Areas

It is Commonwealth policy to identify and protect those lands which qualify as either wild or natural areas.

Although there are technical differences in the management practices employed in areas designated wild or natural, the philosophy behind such designation is similar. Wild and natural areas need to be identified and protected so that present and future generations will be able to appreciate, use, and enjoy them in their unaltered state.

19. Off-Road Motor Vehicles

It is Commonwealth policy to require registration of off-road motor vehicles, to restrict their use on public land to those areas specifically designated for this purpose, to develop safety education programs for ORV users, and to set standards for the manufacture of these vehicles.

The popularity and number of ORV's (snowmobiles, motorcycles, dune buggies, trail bikes, ATV's, Jeep's, etc.) is growing dramatically. The use of ORV's will be constrained from disrupting other recreation activities and destroying the ecological and aesthetic qualities public ownership is designed to protect.

20. Land Use Control

It is Commonwealth policy to encourage local, coordinated land use planning and zoning controls to protect and enhance recreation resources.

The Commonwealth has been increasingly concerned with inappropriate development adjacent to recreation facilities and is committed to working with local planning agencies, both to safeguard facilities and to improve the Commonwealth's recreation quality. This policy supports the concept of having some control over the land immediately surrounding recreation areas in order to preserve the natural, scenic, historic, or aesthetic characteristics of the area.

21. Flood Plain Usage

It is Commonwealth policy to place a high priority on the use of suitably identified flood plains for low density recreation areas and open space.

Local governments, private enterprise, and individual land owners should be encouraged to utilize flood plains in a manner which is consistent with the natural requirements of the rivers and streams and which does not endanger property or lives during periodic flooding. Periodic flooding in Pennsylvania is a serious and costly problem to government as well as to private individuals. Low density recreation areas and open space are compatible with nature's intended use of flood plain areas.

22. Resource Capability

It is Commonwealth policy to regulate use of State areas and facilities in order to maintain the quality of the recreation experience and to prevent degradation of resources.

Land and water resource capability and capacity contribute an issue of increasing importance and concern as more people use recreation facilities. Resource

capability is the ability of a specific resource, park, play area, remote resource, etc., to accommodate or contain people's activity without suffering detrimental effects.

Many recreation areas within the Commonwealth are used heavily, most notably those areas in or near large population centers. It is recognized that any specific resource has a finite capacity. Once the resource's capability to support activity has been exceeded, the resource itself deteriorates, ultimately destroying much of the recreation attractiveness and potential. Once a resource has been abused or destroyed, the resource must be repaired or given time to regenerate itself, during which time its usefulness as a recreation area is lost.

23. Facility Maintenance

It is Commonwealth policy to place high priority on maintaining the recreation quality of the State system and to assist local governments in developing the capability to meet the maintenance and operating costs of local park and recreation systems.

Expansion in the systems, inflation, and greater use are the factors which require that a much larger budget as well as a much larger share of the total state recreation investment be used to maintain the system.

24. Bicycling

It is Commonwealth policy to provide and maintain bicycle paths in the major metropolitan areas of the State, to provide for the bicycling needs in suburban and rural areas by identifying routes and paving the shoulder of State roads integral to those identified routes, to provide for bicyclists at appropriate State facilities, and to provide exclusive facilities where the needs so indicate.

Because of limited resources, the selection of routes will be limited to those areas which have the highest bicycling use potential.

25. Roadside Rests

It is Commonwealth policy to provide roadside rests to travelers at 30-mile intervals on the interstate and primary highway systems and to provide tourist information centers at all major points of entry in the State.

Roadside rests and tourist information centers will be designed to meet the needs of people.

26. Use Of School Facilities

It is Commonwealth policy to encourage a school-community concept which makes school facilities available for community use and programs the use of facilities to increase local recreation opportunities.

The Commonwealth recognizes the fact that many of the school-owned facilities are presently being utilized for community recreation purposes but there is still a great potential for use of additional facilities in meeting local recreation needs. Increasing community use of school facilities gives greater human returns (benefits and opportunities) on the large capital investment made by the State and by citizens of the local area.

27. Volunteers

It is Commonwealth policy to seek out and support volunteers and volunteer organizations interested in enhancing recreation opportunities available within the Commonwealth.

At the present time, all Commonwealth agencies responsible for the provision of recreation services work with volunteers. These cooperative arrangements have provided valuable volunteer time and resources to worthwhile projects.

28. User Fees (State Facilities)

It is Commonwealth policy to charge user fees for special recreation facilities.

All users fees will be analyzed at regular intervals to determine the advisability of adjusting fees in accordance with capital investment, maintenance, and operating costs.

29. User Fees (Local Government Facilities)

It is Commonwealth policy to permit local governments to charge user fees for facilities on areas built or acquired with State and Federal assistance and to permit differing rates for local residents and non-residents provided that the differences impose no more of the total financial burden on non-residents than on local residents.

The purpose of this policy is to specifically prohibit discrimination through charging unfair non-resident user fees.

POLICIES WHICH PERTAIN TO A BALANCED SYSTEM

30. Federal-State Coordination

In recognition of the Commonwealth's pivotal role in the provision of recreation resources and services, it is Commonwealth policy to work with all Federal agencies to identify significant areas within the State for Federal acquisition and development and to enhance the recreation opportunities currently provided by Federal agencies.

The Commonwealth has a responsibility to coordinate with the Federal Government in order to achieve a balanced system of recreation opportunities within the State and to ensure an equitable division of responsibility for meeting the recreation needs of the people.

31. State-Local Coordination

In recognition of the Commonwealth's pivotal role in the provision of recreation resources and services, it is Commonwealth policy to work with and assist local governments to help achieve and maintain a balanced system of providing recreation services to the people of the Commonwealth.

In meeting the recreation needs of the people, State agencies must consider all possibilities as to how those needs can best be fulfilled. In Pennsylvania's Recreation Survey it was determined that many people recreate close to their homes (i.e., approximately 75% of the activity days for 17 of the activities surveyed occurred within one half hour of home). Therefore, State agencies have a responsibility to coordinate with local governments to help provide recreation opportunities as close to people as possible and to ensure an equitable division of the responsibility for meeting the recreation needs of the people.

32. Investment Opportunities

It is Commonwealth policy to strive for a long term balance between all of the providers of recreation opportunities.

Although in the final analysis investment priorities are subject to sui generis opportunities to acquire and develop recreation resources, the Commonwealth will attempt to balance the recreation resources offered by the State with facilities that meet the need for specific types of recreation services. Commonwealth assistance to local governments in the provision of recreation opportunities will be consistent with the need for facilities and opportunities at the local level. The Commonwealth will also consider investments made or proposed by private enterprise in planning and setting policy for recreation investments.

33. Employment Of Federal Funds For Recreation

It is Commonwealth policy to seek and to utilize all assistance available to Pennsylvania from the numerous federal programs that deal with recreation and to employ these funds in a manner consistent with the policies set forth in this plan.

Categorical grant programs such as the Dingle-Johnson and Pittman-Robinson programs, community development and forestry assistance funds, and federal highway monies, especially those for roadside rests and bicycling, as well as the Land and Water Conservation Fund are all a part of the Federal financial resources available to the Commonwealth for implementing *Pennsylvania's Recreation Plan.*

34. Utilization Of The Federal Land And Water Conservation Fund

It is Commonwealth policy to conduct a yearly evaluation of the various agencies' needs for allocation of funds available to the Commonwealth from the Land and Water Conservation Fund.

The Commonwealth's fiscal year 1976 apportionment will be allocated as follows. The first priority use is to sustain the Commonwealth continuing planning program. From the balance, fifty-two percent of the funds will go to the Department of Community Affairs for local grants-in-aid and forty-eight percent will go to the participating State agencies.

35. Private Recreational Development

It is Commonwealth policy to encourage appropriate private recreation development, both profit and non-profit.

The Commonwealth recognizes the important role that the private sector plays in meeting the recreation needs of Pennsylvanians. Private recreation enterprise provides about one-half of all the recreation activity days measured in Pennsylvania's Recreation Survey. Profit-oriented recreation is not only a valuable asset to the community but to the economy of the Commonwealth as well.

36. Energy Policy

It is Commonwealth policy to encourage the conservation of energy through the acquisition and development of recreation areas near the population centers of the State and through the promotion of public and mass transit to distant recreation areas.

Limited energy resources require the conservation efforts of all agencies and individuals. In keeping with the goal of conserving energy and recognition of the impact of the rising costs of travel in people's lives, greater consideration needs to be given to the provision of recreation opportunities close to the urban centers of the State and to the promotion of mass transit to remote recreation areas.

37. Utilities

It is Commonwealth policy to encourage utility companies, which own or create resources of potential recreational value, to make these resources available to the public for appropriate recreation use, subject to the review of the appropriate public agencies.

The provision of recreation facilities at a public utility resource is a major concern of the Common-

wealth. In the provision of recreation facilities at these sites the utility companies should be guided by the existing needs and priorities for facilities in the immediate area of the site and the needs, recommendations, and priorities of this plan.

It is recognized that recreation facilities are considered to be of secondary importance in the development of public utility projects and should not be used as the economic justification for the construction of a utility project.

chapter VIII

Recommendations For Action

Chapter VIII

RECOMMENDATIONS FOR ACTION

INTRODUCTION

The preceding chapters have been descriptive of the State's general characteristics, of the roles and responsibilities or framework within which recreational opportunity is provided, of the existing supply, of recreational demand, of the administrative policies which underline the plan and of the recreational needs of Pennsylvanians. This chapter, "Recommendations for Action," and the chapter which follows, "Implementation," conclude the progressive design of the plan. Although it would not be circumspective to expect that all of the recommendations made in this plan will be carried out, many of them will be as can be seen clearly in the action program. However, the recommendations should not be construed to be holy writ. They have been offered, after considerable, deliberate discussion, as a series of coordinated activities which would enhance the recreation opportunities now available in Pennsylvania.

Each will be discussed further, some, undoubtedly, will be dropped, while others will be modified before they are implemented.

Conspicuously absent from these priorities, this chapter and the plan as a whole is a recommendation for the creation of a "super recreation agency" which, in theory, would drop all of the recreation programs and problems into the same administrative basket. Although it cannot be known to a certainty without trial, there is evidence that the variety of programs offered through the many different State agencies could not be administered more efficiently or effectively by one central agency. This does not mean that there are not serious administrative problems with the agencies which now provide recreation opportunities; it means that the creation of one central agency would not necessarily solve these problems.

Because there are so many State agencies involved in the provision of recreation services in Pennsylvania, the recommendations in this chapter are presented by the implementing agency and are structured into four categories:

a) planning and basic research
b) acquisition
c) development
d) management, including maintenance as well as operations.

However, one recommendation which deals with administrative structure is, because of its different nature, made here rather than with the main body of recommendations. This is the recommendation pertaining to bicycling.

In terms of the number of activity days, bicycling is participated in more often than any other recreational activity. It is enjoyed by more than forty-seven percent of the State's population. For the majority of adults, their participation is probably recreational; for young people, bicycling is their major form of personal transportation, although many of their trip purposes may be to recreational sites.

The common perception of bicycling is that most people travel by car to a destination and then ride their bikes on bike paths. The reality, as measured by the *Pennsylvania Recreation Survey*, is that most people ride their bikes from home, which means they ride on roads and streets, because bicycle paths are extremely few in number.

The Regional Needs Analysis portion of this plan very clearly indicates that the people interviewed want bike paths or bikeways. They indicated almost uniformly that facilities to meet bicyclists' needs were nonexistent, but their provision should be a high priority.

Bicycling is both a recreational and transportational anomaly in that there is *no* clear *assignment of responsibility* to meet bicyclists' needs. Through a series of ad hoc responses, the Pennsylvania State Police and the Departments of Education, Community Affairs, Transportation, Environmental Resources and Justice have all been dealing with different aspects of the problem. All these agencies have a role to play in meeting bicyclists' needs, but there is a very clear need to place the responsibility for meeting bicyclists' needs in a single agency where programs can be formulated, where coordination has a focus, where information can be secured and where progress can be monitored.

For a myriad of reasons, including potential and existing funding sources, functional responsibility and existing engineering and design capability, this plan recommends that the Pennsylvania Department of Transportation be charged clearly and specifically with the responsibility to plan cooperatively, design, coordinate, construct, operate, and maintain street and road related facilities to meet the needs of bicyclists. In addition, the Department of Transportation should be charged with the responsibility to advocate the use of the bicycle, to serve as a focus for technical aid to local and State agencies which provide facilities to meet bicyclists' needs and to serve as a central source of information on bike routes, safety education programs, legal matters pertaining to bicyclists, accident information, and grants-in-aid available to help meet the needs of bicyclists.

Many of the recommendations presented in this chapter are made on the basis of an understanding of the various elements of the needs chapter. Agencies in State government have all participated in developing these statements and, as a result, there is a high level of commitment to accomplishing these recommendations. Some of the actions called for are outside the purview of State government.

The recommendations contained in this chapter are consistent with locational policies, internal program priorities and funding priorities detailed in specific agency management plans. Clearly, all of the agency management plans are not up-to-date, but they were used in preparation of this plan and lend additional insight to the recommendations presented in this chapter. During the continuing planning process it is envisioned that one major work element will be to update the management plans.

THE FEDERAL GOVERNMENT

Planning

1. That Federal recreation planners in the Bureau of Outdoor Recreation provide leadership in coordinating the development of interstate cooperative research and planning programs. Where interstate concerns are apparent, as in the case of Washington Crossing State Park, for example, the Bureau of Outdoor Recreation should intensify efforts to ensure that data are integrated, that policies are compatible with the objectives of the principles involved and that specific project designs are reflective of a coordinated decision making process.

2a. That the Federal Congress increase the funding allocation of the Land and Water Conservation Fund program and extend the purposes for which those monies can be used to include indoor recreation facilities.

b. That the Federal match in the Land and Water Conservation Fund program be increased to seventy-five percent for planning projects, with State or local government supplying the residual twenty-five percent. Planning priorities for both the State and local government are frequently influenced by the size of the Federal match. Programs which have the highest Federal match tend to receive the highest priority. An increase to seventy-five percent would bring recreation planning into fair competition with existing Economic Development Administration, Appalachia, and 701 programs.

3a. That the U.S. Forest Service continue to plan its acquisition and development programs in concord with State and regional planning agencies through the Bureau of Outdoor Recreation.

b. That future plans for the Allegheny National Forest be consonant with Pennsylvania's recreation objectives.

4. That the National Park Service, Department of the Interior and the State through their mutual association with the Bureau of Outdoor Recreation enter a new era of collaborative planning. The National Park Service's use of Land and Water Conservation Funds, the management of parks and the employment of special Congressional appropriations within the State are all matters of common interest and point rigidly to the need for coordinated planning.

5. That the U.S. Fish and Wildlife Service collaborate in its planning not only with the Pennsylvania Fish and Game Commissions but also with all State and regional planning agencies that provide recreation opportunities.

6. That the U.S. Army Corps of Engineers' Pennsylvania offices continue to work in conjunction with State and local agencies in planning for the development of recreation resources and facilities in areas surrounding their reservoirs.

7. That the Federal Power Commission strengthen the Exhibit R reports prerequisite to Federal licencing of hydroelectric power stations by developing the means through which appropriate State and local planning agencies and citizen and advocate groups can participate with the power companies in their preparation.

8a. That all Federal agencies' management plans and projects affecting Pennsylvania be consonant with State plans and perspectives. The national context of Federal agency plans must be elastic enough to accommodate the unique characteristics and needs of Pennsylvania.

b. Direct provision of recreation opportunities are explicit responsibilities of both Federal and State government. Determination of what constitutes a fair share of the responsibility for each must be given a high priority by BOR and the State.

9. That the Bureau of Outdoor Recreation work with other Federal agencies whose programs affect recreation and which require state plans to encourage statewide planners in these programs to use the results of the statewide recreation plan in their work. Formal agreements among Federal agencies such as Interior, the Environmental Protection Agency, Housing and Urban Development, Transportation, Health, Education and Welfare and their state counterparts are needed to coordinate natural resource planning with human resource planning.

10. That the Federal Government proceed with a vigor-

ous program for acquiring the unprotected portions of the Appalachian Trail in Pennsylvania. The Commonwealth of Pennsylvania as well as the Appalachian Trail Conference and the Bureau of Outdoor Recreation have all recognized that a severe threat exists to the integrity and recreational quality of the trail. In Pennsylvania, the trail is routed for more than 117 miles over lands owned and managed by State government agencies. The remaining 92 miles of the trail cross private lands without formal agreements with the landowners.

Because of changes in ownership and planned second home developments, portions of the privately owned section of the trail are severely threatened. The Appalachian Trail is a nationally designated scenic trail and, as such, denial of public access must not be allowed.

The Commonwealth now calls upon the Federal Government to shoulder its fair share of the burden of maintaining the trail open to public use. The final solution to the trail's integrity and recreational attributes is ownership, either in fee or through any other number of part-ownership possibilities.

The National Trails System Act (P.L. 90-543) creating the Appalachian Trail, authorized $5 million to Federal agencies for the purpose of acquiring needed portions of the trail (Sec. 10). This money has never been appropriated and, consequently, Federal agencies have never proceeded with the acquisition of the trail. Congress should move to appropriate the authorized money so that the National Park Service or some other Federal agency can proceed with acquisition of endangered portions.

The act also authorizes Federal agencies to use monies available from the Federal Land and Water Conservation Fund Program. The National Park Service should assign a high priority to the acquisition of the trail from this Federal funding source.

Because the $5 million authorized in 1968 is probably inadequate to accomplish the objective, the Department of Interior should seek additional Federal authorization and appropriation for funds to acquire the Appalachian Trail.

11. That the National Forest Service proceed with the acquisition as outlined in the composite recreational plans for the Allegheny National Forest. These plans include the Tionesta Creek, the Allegheny River and may ultimately include the Clarion River. These acquisitions are necessary to assure the recreational integrity of these three resources.

Management

1. That the Allegheny National Forest receive a larger share from the U.S. Forest Service District allotment in order to finance the recreational use of the forest lands and facilities.

In regard to recreation, the Forest Service faces many problems. One of the major ones has been the lack of sufficient funds to stay abreast of maintenance problems resulting from the mounting use of recreation facilities. Since, in the long run, it is a costly mistake to neglect maintenance, it is recommended that the District re-evaluate its fiscal priorities with particular attention to the Allegheny National Forest.

2. That Congress enact legislation to create a National Recreation Area surrounding the Raystown Lake in Huntingdon County.

3. That the National Park Service take over the management of Valley Forge State Park, Brandywine Battlefield State Park, Washington's Crossing State Park and the New Jersey portion of the Washington's Crossing historical areas to create three national parks.

The National Recreation Plan encourages Federal agencies to turn over to the states as much of the responsibility for operating and maintaining recreation facilities as is practicable. What is practicable is related directly to matters of responsibility. Since the historical parks mentioned above are of a "nationally significant" character, it is the Commonwealth's position that their operation is more of a Federal than a State responsibility and therefore less practicable for the State than the National Park Service to operate.

4. That the Office of Management and Budget desist from manipulating the match percentage in Federal funding programs.

Specifically, the act creating the Youth Conservation Corps program specifies a matching ratio of up to eighty percent Federal funds and twenty percent State funds. It is felt that the Office of Management and Budget in limiting this program to a fifty percent match is, in effect, tampering with Congressional intent by shifting more of the financial burden to the State. The State's ability to raise revenues or to have revenues increase at the same rate as inflation is severely limited. However, federal revenues are much more responsive to general economic conditions and therefore should be used preferentially to meet Congressionally approved programs.

5. That the Bureau of Outdoor Recreation expand the scope of its successful experiment in delegating greater administrative responsibility to the State Liaison Officers under the "Certification Program". The project cost limit should be increased from $50,000 to $100,000.

6. That the Federal Government assume greater responsibility in developing land made available for recreation purposes through the Federal Surplus Properties Act. It is the Commonwealth's position that these lands will benefit the programs not only of State agencies but also Federal agencies, particularly the National Park Service. To this end, the Commonwealth recommends mutual evaluation of these lands to determine the equitable division of responsibility.

STATE AGENCIES

Office of State Planning and Development

Planning

1. That the Commonwealth undertake a multi-agency Statewide Open Space Study to determine the planning components needed in developing a cohesive statewide open space system. The identification of open space needs is important to the Commonwealth's land use and recreation planning efforts and would logically build on the *Metropolitan Open Space Study* in progress by the Department of Environmental Resources and the *Interim Land Use Guide* developed cooperatively by OSPD and the Western Pennsylvania Conservancy. The regional needs analysis portion of this plan points up a need to differentiate open space from recreation land.
2. That *Pennsylvania's Recreation Plan* demand concept be expanded to include time-budget considerations. An understanding of the periods of time individuals have for recreational pursuits, as well as the time of the day, week, or year in which these periods of time can be exercised, will enhance substantially the State's ability to help in providing recreation opportunities.
3. That the Pennsylvania Recreation Plan be expanded conceptually to include consideration of leisure time and the role that recreation plays in the use of leisure time. Future recreation planning studies should utilize and expand the information developed in the telephone survey and projection series undertaken in the 1975 plan update.
4. That the Commonwealth undertake specific studies which address the total recreational potential of an area rather than just the impact of a specific park or recreation site. Areas of consideration might include the Schuylkill River Basin, the Northcentral Mountains, the area surrounding Raystown Dam, or the Monongahela River Valley.
5. That Pennsylvania's computerized inventory of recreation areas and facilities be reorganized and expanded to store more detailed information and make the information contained therein more readily usable.
6. That the Office of State Planning and Development continue to function as the planning coordinator of State agencies involved in providing recreation opportunities and that in this coordinative role OSPD, through the recreation planning process, will work to mold agencies' functional plans into a cohesive State Recreation Policy.
7. That the Office of State Planning and Development maintain a continuing staff commitment for the purpose of maintaining *Pennsylvania's Recreation Plan.*

The Pennsylvania Fish Commission

Planning

1. That the Fish Commission continue to apply maximum effort to update and classify the inventory of fishing and boating resources in the Commonwealth.
2. That the Fish Commission initiate usage and participation rate surveys for both fishing and boating.
3. That the Fish Commission undertake planning studies to determine specific needs for and locations of new boating and fishing access points as well as potential stream acquisitions and impoundments.
4. That the Fish Commission participate in the identification and screening of candidate streams under Pennsylvania's Wild and Scenic Rivers Act.
5. That the Fish Commission undertake studies to determine the recreational usage capacity for fishing and boating resources and the probable effect on the quality and quantity of fishing and boating accommodated on streams through stocking policy, special regulations and stream improvements.
6. That the Fish Commission monitor and evaluate continuously the fish distribution quotas as they affect individual streams and lakes, taking into consideration present and potential usage, resource capabilities, the environmental impact upon these water bodies and their accessibility.
7. That the Fish Commission undertake a market study to assist in determining a reasonable license fee structuring system, to investigate such considerations as special trout stamps, licensing of juvenile fishermen, licensing of women and special family rate plans and to provide information about the probable market distribution of fishermen.

Acquisition

1. That a fishing and boating access area be acquired approximately every 10 to 15 miles on Pennsylvania's major river systems, where feasible.

These rivers are the Susquehanna, including its two main branches, the Delaware and its two major tributaries, the Lehigh and the Schuylkill, and the Allegheny and Monongahela which meet to form the Ohio River. Access areas will be acquired where feasible on other streams and lakes where the need and opportunity exists.

2. That efforts to locate a feasible site for development of a fish cultural station in the eastern portion of the State be continued.

With the exception of one station at Pleasant Mount, in Region 3, all facilities are located in the central or

western part of the State. A cultural station located in Region 1 or 2 would be desirable, as it would serve to produce fish adapted to the waters of the eastern regions. It would also greatly reduce fish distribution expenses to these regions which are receiving an increasing quota of trout under the revised distribution system and it would provide a visible and identifiable image of the Fish Commission for sportsmen and others in this populous area.

3. That streams be acquired when circumstances dictate that acquisition is necessary for the preservation, restoration, or management of the water for public use.

Purchases of this nature occur infrequently, for instance when a special need arises or unusual opportunity exists. Such acquisitions are most likely to occur in areas of heavy demand when a resource is threatened, or in an unusually high quality or fragile watershed.

4. That as an existing lake becomes available in an area where current or projected demand is high, acquisition be carefully evaluated.

Development

1. That the Fish Commission complete the development of its fish cultural station sites.

Construction, rehabilitation and modernization of fish cultural stations (hatcheries) have involved the major development expense and effort of the Fish Commission during the past 10 years. This modernization of facilities is being accomplished at a cost of over $7 million. However, the increased effectiveness in the production of fish justifies the cost. Additionally, the reduction of man hours involved in fish production has helped make it possible to meet the spiralling costs of personnel and fish food. The modernization of five more existing stations and the construction of two new stations will complete the long range expansion and modernization program for warmwater and coldwater facilities.

2. That waste treatment facilities for hatchery effluents be constructed for all fish cultural stations within the next five years.

Waste treatment facilities are being built into new facilities and provide easier control of fish disease and a cleaner operation.

3. That the Fish Commission continue its program to develop fishing and boating access areas every 10 to 15 miles along the major river systems and on major lakes.

After a site has been acquired, development usually follows as soon as practical so the facility can be put into use without unnecessary delay. Priority will be given to development in Regions 1, 5 and 10, where the greatest need exists.

4. That development of new dams and lakes be limited in the future. Construction of dams in areas subject to high recreational boating and fishing demand has been an important program in past years for the Fish Commission. Because of the increasing costs and the fact that most of the highest priority needs have been fulfilled, further development of new waters should be limited. However, if an existing lake should become available for acquisition, an access area will be provided, even if major development effort is not feasible. Major repairs to existing impoundments will be performed as the need exists.

5. That stream improvements be undertaken by the Fish Commission to augment the productivity and carrying capacity of selected streams.

Stream improvements may be undertaken to improve a stream whose natural characteristics do not provide suitable depth, cover, temperature, current, or spawning areas or it may be done to rehabilitate a portion of a stream ruined by channelization. Most stream improvements work is now accomplished by outdoor and environmental groups under the guidance of the Commission Fisheries Environmental Services Branch. An increasing number of organizations are performing stream improvements as part of the Commission's "Adopt a Stream" program. Although stream improvements done entirely with Fish Commission funds are usually limited to streams owned or leased by the agency, some preparatory construction work is also done by Fish Commission personnel and completed by the outdoor and environmental groups.

6. That the Fish Commission, in the next five year capital program, continue its development of decentralized administrative facilities for use of Area Fisheries and Maintenance Managers and Regional Law Enforcement Supervisors.

Expansion of the responsibilities of the Fish Commission, due to the rapidly increasing number of cultural stations, access areas, impoundments and regional offices, has resulted in the need to decentralize the organization.

Department of Community Affairs

Planning

1. That the Department of Community Affairs coordinate the collection of local recreation inventory information with regional and county planning agencies.

2. That the Department of Community Affairs expand the *Pennsylvania Recreation Survey* to gather additional information about local recreation participation patterns, including indoor recreation activities.

3. That the Department of Community Affairs carry out a long range, continuing evaluation of the grant-in-

aid program in order to monitor its effectiveness and initate needed changes.

4. That the Department of Community Affairs undertake a planning study of the possibilities for implementing closer recreation programs and facility coordination between local public, non-public and quasi-public recreation providers.

5. That the Department of Community Affairs undertake a joint planning study with the Department of Education to determine means of developing community-school recreation programs and a technical assistance program to municipalities for the purpose of spurring jointly sponsored programs in those areas of the State where programs have been weak or non-existent.

6. That the Department of Community Affairs undertake a comparative analysis of the local park user information collected in the summer of 1974 and the *Pennsylvania Recreation Survey* in order to correlate the data of these two sources.

7. That the Department of Community Affairs initiate a local park operation, maintenance and program cost study so that prospective grant applicants can be more fully advised of these costs.

8. That the Department of Community Affairs provide technical assistance to Environmental Advisory Councils for land use, flood plain and environmental planning.

9. That the Department of Community Affairs maintain adequate staff to provide for a continuing planning program for Land and Water Conservation Fund eligiblilty.

10. That the Department of Community Affairs establish a research and state planning clearinghouse service to facilitate coordination and cooperation with other states, colleges and universities, Federal and State agencies, and local governments in the production and dissemination of research and technical assistance information.

11. That the Department of Community Affairs undertake a project to evaluate the Components Concept which was identified as a planning tool in the *1971 Statewide Outdoor Recreation Plan.* A brochure explaining the Components Concept has been distributed locally and has been applied in several municipalities across the State. The Components Concept will be evaluated to determine its applicability and usability to local governments for local recreation planning.

12. That the Department of Community Affairs include planning as an eligible function for any future assistance program.

Acquisition

1. That the acquisition of land for local parks should be accelerated in order to meet the national standard of ten acres per one thousand people.

Local governments in Pennsylvania now have half of the acreage required to meet the national standard for local parks and recreation areas. Priorities in acquisition should be directed toward Uniform Planning Regions 1, 3, 5, 6 and 8 as these regions exhibit the greatest deficiencies in park acreage and toward the acquisition of municipal scale parks. The acquisition of large, compact and/or remotely located county parks should be critically evaluated in terms of local need and proximity to State and Federal land holdings. This does not include linear or stream valley parks, the development of which are treated in the recommendations dealing with flood plains.

2. That future recreation assistance programs to local governments should include the provision to assist in the acquisition of existing structures suitable for indoor recreation activities. Warehouses, abandoned schools and industrial buildings can be renovated to meet year round recreation program needs in municipalities with full-time qualified leadership and established programs.

3. That the Commonwealth assist local governments in the preservation, conservation and, where necessary, acquisition of open space and conservation areas such as steep slopes, aquifer recharge areas, flood plains and river and stream valleys through a financial incentive program.

The need to establish a distinct and separate program to assist local governments in the management and control of open space and conservation became critically apparent after the flood in 1972. While the Department encourages the acquisition, protection and preservation of underdeveloped flood plain areas, it discourages the development of inappropriate recreation facilities in both natural and recovered flood plain areas. A program for the preservation of critical open spaces is recommended, either as a separate local government park land conservation and preservation program or as a distinct part of a program which would be administered by several State agencies (similar to the PROJECT 500 program).

4. That the Department of Community Affairs provide for variable percentage funding for projects based on local financial capability and need.

Development

1. That a program of State assistance to local government agencies be initiated to accelerate the development of local park and recreation areas.

The rate of local park development has not kept pace with the availability of lands so that there is a deficit of approximately 63,000 acres of developed local park and

recreation areas. In addition, there are 21,000 acres of large local parks which require expanded development. Priority should be given to the development of neighborhood and municipal scale parks in those communities where the greatest deficiencies exist.

2. That a program of state assistance to local governments be initiated which would include the development of indoor and extended-use facilities as well as outdoor facilities.

Development of indoor and extended-use facilities should be encouraged where weather, terrain and the degree of urban development offer no other acceptable alternative to the provision of recreation opportunity and where population density and participation indicates sufficient use to justify the additional project cost. These types of facilities would enable local governments to meet the year-round, day-to-day recreation needs of people and make local governments more capable of serving the special needs of the socially, economically and physically handicapped.

3. That a program be initiated to provide low interest loans to public and private agencies for the development of specialized facilities which would meet identified public recreation needs but which are beyond the scope, capability and responsibility of local government agencies to fund and operate.

4. That the Department of Community Affairs provide variable percentage funding based on local financial need for projects.

Management

The Department of Community Affairs is not a primary management agency of recreation resources, but exists to assist, support and advise local governments. Therefore, the recommendations presented for the Department reflect a summary of the needs of local governments and are intended to increase the efficiency and effectiveness with which the Department can aid local governments in providing recreation services.

1. That the Pennsylvania Legislature enact a community recreation program for the purpose of assisting local governments in establishing and maintaining year-round recreation programs on a limited demonstration basis in communities where such needs exist.

The cost of establishing year-round municipal recreation programs continues to be a deterrent to many local governments. A state incentive program is needed in order to provide competent full-time leadership at the municipal level to administer and coordinate recreation programs which will meet the recreation needs of the community. The program is also needed because of the increase in local park and recreation areas, growing public awareness and use of local recreation facilities.

2. That a demonstration project be carried out to provide financial assistance to municipalities for contracts to provide input to research projects including local recreation maintenance, operation and program costs.

The final product of this demonstration program would be improved technical assistance to the local government in terms of ability to identify local needs and predict accurately costs in operating and maintaining park and recreation facilities and programs.

3. That the legislature establish as part of the local assistance program the flexibility for increased financial assistance for intergovernmental cooperative recreation projects, particularly where intergovernmental cooperation in the provision of recreation services is the most efficient method of meeting public needs.

Not all local governments can, on the basis of population or cost, provide all the recreation facilities that are needed. The Department of Community Affairs has had a significant degree of success working with intergovernmental agencies and authorities in fostering cooperation between local governmental agencies for the development of multi-community facilities.

4. That the Department of Community Affairs employ the simple and expedient method of funding recreation projects in the small and less affluent communities requiring less than $20,000 in State assistance through a one-time block grant.

One of the shortcomings of the PROJECT 70 and 500 programs was the amount of administrative review and approval attendant with large State programs. Many small communities do not use these programs because of complicated administrative requirements.

5. That the Secretary of the Department of Community Affairs be given the authority to approve projects up to $100,000 in State assistance in accordance with current policies from the Governor's Office.

The Department should be charged with the responsibility to ensure that all local government projects are in accordance with the Pennsylvania Recreation Plan and its goals and consistent with the annual funding program prior to approval. The Department's actions would be open for review by the Governor's Office, the Office of State Planning and Development, and the legislature on an annual basis. The Governor's Office and the Office of State Planning and Development would be included in the A-95 project review system which applies to all projects funded by the Department of Community Affairs. This simplified procedure for reviewing all projects would also enable the Office of State Planning and Development and the Governor's Office to be aware of what projects are being funded before they are actually funded. Final approval for projects over $100,000 in State aid would still be the responsibility of the Governor's Office.

6. That municipalities be responsible for ensuring that the Department of Environmental Resources, the Department of Health, and the Department of Labor inspect local recreation projects before the final payment of state assistance is made.

7. That the Department of Community Affairs be authorized to fund the development of public recreation facilities on school district lands through the school district where formal written agreements exist between the school district and local government.

To be eligible for funding, the agreement should describe specifically the roles and responsibilities of each agency with regard to the provision of recreation services in the community for the joint operation and coordinated public access to facilities and programs.

8. That local governments with a population of 15,000 or more be required to have a comprehensive community recreation plan in order to be eligible for State assistance in acquiring and developing recreation areas and facilities. Future assistance programs should continue financial assistance to local governments for planning.

The complexities of modern local government require the wise and considered expenditure of public monies. This fact has been recognized by Federal and State Government agencies for some time and has resulted in a planning requirement for numerous Federal and State assistance programs. Recreation planning is critical in those communities which are large enough to require full-time professional leadership and year-round programming to meet the day-to-day recreation needs of the public. Generally, the only local governments with professional leadership and sufficient population to require year-round recreation programming are those which are either affluent or have a population in excess of 15,000. The provision of recreation facilities and programs by these local governments should be coordinated with other public programs as part of a comprehensive plan and in accordance with official policy.

9. That the Department of Community Affairs allocate funds to those projects which will serve the greatest number of people, per dollar expended, where such expenditures will ensure the maximum accessibility to recreation opportunities which are unencumbered by oppressive restrictions.

The Department should ensure that the public will be afforded the maximum possible recreational opportunity in the local parks and recreation areas of their choice, regardless of race, creed, sex, ethnic heritage, or income. Municipalities which use zoning and other land use control practices that effectively discourage construction of dwelling units that could house minority, low income and, in some cases, middle income families either by direct exclusion or by raising the price of residential development will not be considered for funding eligibility under the Federal Land and Water Conservation Fund Act or any State funding program unless mandated otherwise.

The Pennsylvania Game Commission

Planning

That the Game Commission continue to undertake yearly studies of game harvest. These studies are used as the basis for management decisions concerning the number and distribution of anterless deer licenses issued, as well as the basis for setting season and bag limits for deer, bear and other species.

2. That the Game Commission build on the data collected in Pennsylvania's Recreation Survey report to define more clearly the needs of Pennsylvania's hunters, trappers and sport shooters.

3. That the Game Commission undertake studies of the growth, maturation and habitat of deer and bear. Information gathered from this basic research is used in evaluating and modifying range conditions and cover planting on game lands.

4. That the Game Commission continue strip mine backfill and revegetation studies to determine the least expensive and most productive technique for reclaiming these areas.

5. That the Game Commission continue basic research on the life cycles, habitat and food requirement of the black bear, turkey, mourning dove, rabbit, deer and ruffed grouse.

6. That the Game Commission undertake studies which devise techniques by which public hunting on private grounds can be increased.

7. That the Game Commission undertake studies to determine the level of usage of State game lands for non-hunting, trapping or sport shooting purposes and the potential need for public shooting ranges in urban areas.

Acquisition

1. That the Game Commission acquire interior holdings and indentures in game lands.

The acquisition of interior holdings will permit complete control of lands within game land boundaries and allow for better wildlife management. The acquisition of indentures will reduce the cost of maintaining boundary lines.

2. That the Game Commission acquire additions to existing State game lands when possible.

This will provide additional public hunting acreage and help reduce management costs. Large tracts of land are inherently advantageous in increasing hunter safety and in reducing per unit management costs.

3. That the Game Commission acquire access corridors to State game lands where they are needed.

The Commission acquisition program began 54 years ago, and at that time there was relatively free access across private lands. However, land ownership philosophies have changed and in this era of "posting of lands" the Commission must acquire blocks or strips that extend from existing State game lands to public roads. Most State game lands have good access, but some large blocks require improvements to access for better utilization both by the hunter and the general public.

4. That game lands be acquired near metropolitan areas.

The Commission has, over the past years, acquired lands in the southeast and southwest and near other metropolitan areas. However, high land costs have all but stopped this program. PROJECT 70 helped somewhat but additional lands are still needed within a fifty-mile radius of heavy population centers.

5. That significant wetlands be acquired for public ownership.

The need for wetlands is recognized. These areas are unique and limited in acreage. Such wetlands provide a habitat for a varied population of game species and wild waterfowl.

6. That new State game lands be acquired when possible.

The Game Commission acquisition program is most important in this era of shrinking open space. Game habitat areas are being destroyed by developments of various types. Urbanization has taken a toll of thousands of acres of prime wildlife habitat. The Commission, with its financial limitations, has placed a high priority on further acquisition to ensure that future generations will be able to enjoy the wildlife resources of the Commonwealth.

Development

1. That trails be established on the larger forested tracts to improve hunter access and accommodate hiking and other trail related activities.
2. That continuity of the Appalachian Trail and other similar trails that cross State game lands be maintained.
3. That the construction and erection of squirrel nesting boxes be encouraged in timber stands too young to furnish satisfactory natural cavities.
4. That areas and sites which provide unique opportunities for the observation and study of wildlife be identified throughout the State.
5. That nature and interpretive trails be developed on selected game lands.
6. That target ranges on State game lands be improved to insure greater safety and noise reduction and to accommodate the sport shooting needs of those who do not belong to private shooting clubs.

Management

1. That the Pennsylvania Legislature increase the $100 per acre ceiling on the acquisition cost of the Game Commission.

Land costs are escalating at a rapid rate. Desirable tracts, including wetlands, access sites and interior holdings far exceed the Game Fund limitation of $100 per acre price.

2. That the Game Commission accelerate monitoring programs and initiate an action program when a declining population of wildlife species places it in a rare category.
3. That reclamation of strip mine areas on State game lands continue through planting of suitable shrub and herbaceous species.
4. That unique or rare eco-system areas be maintained through "no management" on these sites.
5. That the illegal kill of underage bears during the fall season be reduced through a more vigorous educational program for hunters.
6. That the breeding stock of game be safeguarded by shortening or closing the hunting season when necessary.
7. That the forest management plan be implemented for all timbered holdings of the Game Commission.
8. That fields on forest edges, forest opening, roadways, pipelines and power lines continue to be planted with forage crops such as grasses and legumes.
9. That those species of trees and shrubs which produce dependable crops of mast or fruit eaten by deer be planted.
10. That soil holding plants unattractive to deer be planted along the highway.
11. That valuable mast or fruit producing trees and vines continue to be released from competition and preserved during cutting operations.
12. That evergreen clumps be provided in pure-stand hardwood forests as protection for ruffed grouse and wild turkeys.
13. That grape vines and greenbriar thickets be exposed to sunlight where practical as a grouse management procedure.
14. That large tracts of timber on game lands located in the mountain forests continue to be clear-cut in accordance with a prescribed forest management plan to provide proper habitat for grouse, rabbits and hares.
15. That the practice of creating openings in dense forests for the benefit of wild turkeys, grouse and other species by planting grasses be continued.
16. That the growth of green aquatic vegetation in spring seeps of mountain forests be encouraged as a winter food supplement for wild turkeys.

17. That cutting rotation continue for forested game lands located in the primary turkey range in order to maintain at least fifty percent of the timber in a stage sufficiently mature to produce good quantities of mast.
18. That a short rotation management (cutting) procedure be implemented on select aspen sites in forested tracts to improve the habitat for ruffed grouse.
19. That present habitat improvement practices—woodland border cutting, planting game food, cover trees and shrubs, and planting food strips—be continued on game lands located in non-forested areas and on the Cooperative Farm Game Projects.
20. That trapping and transfer of native turkeys be used to supply stock needed to expand the present range.
21. That game farm turkeys be released only in the fall and only on third class ranges where wild stock is nonexistent.
22. That experimentation with pheasant species adapted to marginal farmland and bushlands be continued.
23. That new game species be propagated, experimentally if necessary, in order to establish desirable species.
24. That wild ring-necked pheasants be trapped and transferred in order to re-establish wild breeding populations on suitable ranges.
25. That the marsh impoundment program be continued and expanded.
26. That artificial nesting devices be erected in suitable habitats in order to increase the mallard and wood duck population.
27. That furbearer populations be maintained at desirable levels.
28. That the recreational harvest of abundant fur animals with destructive or detrimental characteristics be encouraged.
29. That the management of predatory species be promoted through recreational hunting and trapping.
30. That complete protection be provided for all hawks and owls.
31. That trapping of birds of prey be prohibited.
32. That the Cooperative Farm Game, Forest Game and Safety Zone programs be expanded wherever necessary to provide (a) hunting space to meet an increasing demand or (b) hunting space where private lands are largely closed to public hunting.
33. That the structural features of the Cooperative Farm Game Program be reviewed carefully to make the program more effective in terms of hunting quality and more attractive to the private landowner.

Pennsylvania Department of Transportation

Planning

1. That the Pennsylvania Department of Transportation, through the A-95 and A-96 review and comment procedures, continue to monitor Federally-aided recreation projects to determine their impacts on State-funded transportation facilities. Such review holds a vast potential for spotting discrepancies between the activities of different agencies of the State and Federal Governments.
2. That PennDOT continue to participate in the formulation of state plans which influence the provision of recreational opportunities, so that wherever possible, road related services and facilities enhance the recreational potential of an area.
3. That PennDOT continue studies which would serve as a catalyst for providing mass transit to the elderly, poor and handicapped, thereby giving them access to the many State and Federal facilities which exist within the Commonwealth.
4. That PennDOT continue in the formulation of a Statewide Bicycle Policy Study as a joint venture with other State agencies as well as the Federal Highway Administration and citizens groups.
5. That PennDOT continue in the planning and design of bikeways in the metropolitan areas of the State, as required to meet the conditions of the Clean Air Act and pursuant to the findings of the Statewide Bicycle Policy Study.
6. That PennDOT continue to work with regional, county and local planning agencies to provide the analytical framework for bicycle planning across the State.
7. That PennDOT continue to work with the U.S. DOT in its investigation and study of user access to parks, recreation areas, historic sites and wildlife areas. Special emphasis should be placed on Section 134 of the Federal Highway Act of 1973 which provides for investigation of the alternatives to the private automobile as a means of access to park and recreation resources.

Acquisition

1. That PennDOT acquire bike routes as necessary to carry out the findings of the Pennsylvania Bicycle Study.
2. That PennDOT acquire those few roadside rest areas necessary to complete the State network of scenic overlooks and roadside rests.

Development

1. That PennDOT accelerate the removal of unsightly billboards and the screening of junkyards pursuant to the existing Interstate Highway Act.
2. That roadside rests be developed to accommodate the special needs of physically handicapped people.
3. That PennDOT pave the shoulders of routes which have been identified as critical to the provision of adequate bicycle routes.
4. That PennDOT assign a high priority to the devel-

opment and upgrading of facilities which provide access to parks and recreation areas.

Pennsylvania Historical and Museum Commission

Planning

1. That the Commission develop and implement a historical site survey program throughout the Commonwealth for the purposes of identifying and screening sites of national, state and local significance.
2. That the Commission, through the A-95 and A-96 reviewing/comment process, monitor the activities of other State and Federal agencies to prevent the destruction of historic sites and property in the Commonwealth.
3. That the Commission continue to work with State agencies as well as with Federal officials in the formulation of State plans and Federal projects which have a potential to affect historic sites and properties within the Commonwealth.
4. That the Commission continue to expand its outreach program to assist local and regional governments in identifying and preserving historic sites, properties and districts. This work will include assistance in the form of formulation of historic district ordinances and zoning ordinances.
5. That the Commission, through a continuing planning process, maintain the State Historic Preservation Plan to complement the National Historic Plan and to maintain eligibility to expend funds under the National Historic Preservation Act of 1966.
6. That the Commission undertake studies to evaluate the present historic interpretation programs to determine their effectiveness with the public. Findings from these studies are to be used to adjust the existing programs and to design future interpretive programs.

Acquisition

1. That the Historical and Museum Commission acquire the following historic sites:
A) Albert Gallatin Homestead—Fayette County
B) Lafayette's Headquarters—Chester County
C) The Port Kennedy section of the land east of Valley Forge State Park—Montgomery County
2. That the Historical and Museum Commission help private historic preservation groups to acquire the following historic sites through the National Historic Preservation Fund
A) Quiet Valley Farm—Monroe County
B) Ebenezer Maxwell House—Philadelphia County
C) Isaac Meason House—Fayette County
D) Sun Inn—Northampton County
E) Wagner House—Butler County

Development

1. That the development projects related to the Bicentennial Celebration receive first priority for funding.
2. That security systems be installed at Commonwealth historic properties and where necessary at Historical and Museum Commission museums.
3. That museum development projects such as exhibits and collection arrangement display cases, as well as outdoor recreation developments, take place at the Commonwealth museums to complete the regional museum concept. These museums include the Anthracite Museum, the Lumber Museum and the Railroad Museum.
4. That the Pennsylvania State Legislature enact a matching grant fund program for the purpose of providing assistance to local historical societies to: 1) acquire collections of antiques and historical artifacts, 2) publish historical research documents and 3) acquire and develop local historical sites and properties.

Management

1. That the Commission continue to work with existing volunteer organizations, which in the past have offered services such as guiding tour groups, conducting special historical events, cataloguing collections of historical artifacts and participating in archaeological digs. The Commission will also actively encourage and support the creation of additional volunteer organizations.
2. That the Commission establish an annual historic preservation conference to develop a public awareness of preservation programs.
3. That the Commission continue to undertake educational and special event programs for the general public, as well as special programs for handicapped people.
4. That the Commission dilate educational and informational programs at museums throughout the State to involve the widest possible public participation.
5. That the Commission apply the concept of Pennsylvania's Historical Preservation Plan to an overall management plan for the Historical and Museum Commission which would emphasize management of Pennsylvania's museums and historic sites.
6. That the Commission continue the practice of charging user fees as a mechanism to control entrance and thereby protect museums and historic properties.
7. That the Commission develop a common cataloguing and registration system for handling the artifacts, collections and antiques which come into Commission possession. Preferably, this cataloguing and registration system would be computerized.

Pennsylvania Department of Education

Planning

1. That the survey conducted by the Department of

Education on the community use of school buildings for recreational purposes be updated annually.
2. That an inventory of school areas and facilities available for recreational purposes be undertaken and updated periodically.
3. That a census of school districts' financial involvement in community recreation programs be established and maintained.
4. That local school districts' implementation of a federally enacted "community school act" be planned and programmed.
5. That studies be undertaken to explore and to articulate possibilities in the cooperation between school districts and communities for the purposes of providing recreation opportunities.
6. That emphasis be placed on leisure time studies within school curriculums so that students and adults will have the background to participate in art, drama, music, physical exercise, games and lifetime sports.
7. That the Department of Education undertake a joint planning study with the Department of Community Affairs to determine the means of providing community school recreation technical assistance programs to school administrators and boards as a means of effectively delivering community-oriented recreational opportunities.
8. That schools be encouraged to utilize alternative learning environments such as State parks, State forests, wildlife preserves, fish hatcheries, county parks, game management areas and especially Commonwealth parks with environmental education programs
9. That long-range plans prepared by local school districts give consideration to the recreation needs and interests of local communities which can be accommodated at school sites.

Department of Environmental Resources

Planning

1. That the Department of Environmental Resources modify the analytical techniques used in the *Pennsylvania Recreation Survey* for estimating and projecting recreation demand in order to get a clearer focus of the needs which Pennsylvanians have for low density recreation opportunities. This study would define and quantify need as well as gather information on the natural qualities perceived to be important to those experiences.
2. That the Department explore the interrelationships which exist between indoor and outdoor recreation experiences, especially as they pertain to the operation of State parks, but also as they pertain to the Department's work with other State agencies and private enterprises.
3. That the Department undertake a planning element which explores the nature of the "leisure time concept." This study would be undertaken to acquire a better understanding of the role recreation plays in the use of leisure time. Such an understanding will help planners make more informed needs analyses which, in turn, will result in the design of better recreation facilities.
4. That the Department continue its investigations of the roles that both the public and private sectors play in the provision of recreation opportunities. This planning work is an attempt to continuously monitor the providers of opportunities to ensure that recreation opportunities are provided equitably and that fair business opportunities and practices are maintained.
5. That the Department continue to monitor the carrying capacity determinations of physical resources both in parks and forests. This basic research is fundamental to the development of long term management programs for these resources.
6. That the Department assume the lead agency role in the development of a State scenic and historic trails system. That working through regional and local planning agencies, the Department develop the identification and screening processes, management criteria, design standards, as well as the financial and administrative programs necessary to carry out a State trails system. Further, that the Department continue to support the Legislature in its efforts to enact a State Historic and Scenic Trails Act.
7. That the Department continue the screening and identification of rivers pursuant to Pennsylvania's Wild and Scenic Rivers Act; further, that as the initial screening and identification is completed, that the Department initiate the detailed studies necessary for nomination and ultimate designation as part of the system.
8. That the Department continue its participation in bikeway development through cooperative planning with other State agencies and regional and county agencies; also, that a relatively high priority be assigned to planning projects which have potential to connect recreation areas at all levels.
9. That the Department continue its basic recreational research program both to monitor the performance of the State park and forest systems and to gain insight into the needs of park users. This is a basic research program and should contain attendance studies, attitude studies, site evaluation, economic and demographic profiles, and origin-destination studies.
10. That the Department keep its recreation plan, *Outdoor Recreation Horizons*, current and continue individual State park and forest master planning programs; further, that new parks and facilities be designed in light of the findings of the *Pennsylvania Recreation Survey*.
11. That the Department maintain a continuing staff committment to work on elements identified by the

Interagency Recreation Planning Committee as necessary for continuous monitoring and updating of *Pennsylvania's Recreation Plan.*

Acquisition

That the Department's acquisition program be directed to accomplish the following three goals: (1) consolidation of State park and State forest lands through the elimination of inholdings; (2) addition of State park lands to serve the heavily populated areas; (3) identification of and acquisition of irreplaceable natural resources, unique ecological areas and low density recreation areas. The following recommendations refer specifically to these three goals.

1. That within its fiscal capability, the Department of Environmental Resources continue its program of consolidation of existing State park lands and State forest lands by means of acquiring and eliminating inholdings.

Interior holdings and certain contiguous private lands create serious management problems and dangers. Such lands should be acquired, where necessary, to protect the quality of the park or forest, provide better access or improve management.

2. That the Department continue to acquire land to meet the recreation needs of the heavily populated regions of the Commonwealth expanding the State park system as conceptualized in *Outdoor Recreation Horizons, 1970.*

Since the enactment of PROJECT 70, which made monies available to acquire lands and establish State parks close to the urban and suburban areas, great strides have been made to meet the recreation needs of these residents. In addition to providing "close-in" recreation areas, which are readily accessible to the majority of the State's recreationists, the Department encourages efforts to make these parks accessible to all segments of the public. To help solve the accessibility problem, the Department, as well as the community, should place special emphasis on the recreation potential of floodplain and river corridor park development.

3. That the Department accelerate its current acquisition efforts to obtain unique wild and scenic rivers, irreplaceable natural resources, unique ecological areas and needed low density recreation areas as they are identified.

With the enactment of the Pennsylvania Wild and Scenic Rivers Act of 1972, the Commonwealth has committed itself to establish a State Wild and Scenic Rivers System. The Department, with the aid of diversified interests, has developed criteria and guidelines to select rivers for inclusion into this system and is now in the process of identifying candidate river segments. Because these rivers cannot be protected by local measures, they must be protected at the state level in order to ensure the preservation of their special scenic or recreational values.

Throughout Pennsylvania there are numerous areas of land or water which possess unusual vegetation or wildlife, or which have significant biological, ecological, or geological features of scientific or educational value. Because many of these areas are privately owned, they can be subject to loss or destruction at the discretion of the land owner. It is very important that these lands be inventoried and identified and that a program for protecting them be developed.

Management

The management of recreation resources is based on two components—natural resources and people. The dual challenge and opportunity is to provide for the needs of people while conserving the resources.

1. That the Department conduct studies to define more closely the carrying capacity and capability of its recreation resources.

The carrying capacity of resources must be determined in order to plan adequately for development, expansion or addition to recreation areas. The human impact on resources will be the ultimate determinant of a specific area's carrying capacity. Specific aspects which influence the determination of the physical or biological carrying capacity include developmental impact on watersheds, eutrophication of recreation area waters and the intricate web of "action-reaction" when development or use impacts the environment. Yet another aspect of carrying capacity is the concept of psychological carrying capacity which deals with the expectations and desires of visitors and may be the most critical component as this is the major determinant of the quality of the recreation experience.

2. That the Department encourage off-season and weekday use of park and forest recreation resources.

The thirteen-week summer season entails seventy to eighty percent of the annual State park use, while off-season use accounts for the remaining twenty to thirty percent. Moreover, approximately sixty percent of the use occurs on Saturday and Sunday. Many facilities could be available for use by winterizing them or by employing design methods sensitive to year-round use. Also, increased information dissemination could serve as a major factor to change recreational patterns and allow increased use during the weekdays and off-season months.

3. That the Department expand its environmental education, interpretative and staff training programs.

As noted in Act 275, State parks are established "for the purpose of promoting healthful outdoor recreation and education."[1] In the Department, the word educa-

[1]Act 275 amended the Administrative Code of 1929 and created the Department of Environmental Resources.

tion has been interpreted to mean (a) environmental education, (b) nature interpretation, and (c) training.
a. The Department has established a prototype of an environmental education program at the Nolde Forest Environmental Education Center, where students, teachers and laymen learn about the environment by using the State park as a resource base. Presently, the Department is establishing a statewide environmental education system and is cooperating with various educational institutions and agencies in the use of State parks and forests as resource bases. This system would feature centers for environmental education emphasis such as:

	Park	Feature
(I)	Shikellamy	The River
(II)	Nolde Forest	The Forest
(III)	Kings Gap	The Mountain
(IV)	Moraine	The Glacier
(V)	Ridley Creek	The Past
(VI)	Prince Gallitzin	The Lake

Other environmental aspects will complement the main emphasis depending on each site's resource capability. Continued cooperation will take place with the National Park Service in the conduct of the following:
(1) National Environmental Study Areas Program which identifies park lands suitable for environmental study purposes by students at nearby schools. Use occurs during the school term on weekdays, making use of State park facilities at a time when they are ordinarily underused.
(2) National Environmental Education Landmarks Program which identifies and preserves nationally significant environmental study areas for students and other interested persons. The program provides a national inventory for interested school groups and technical assistance in developing environmental education.
(3) National Environmental Education Development Program which provides pupils' books, teaching guides and manuals designed to create environmental awareness.
b. The Department offers interpretative programs at many of its State parks and State forest facilities in the form of guided and self-guided nature trails, campfire programs, nature presentations in the field and indoor exhibits, to name a few. The Department also offers undisturbed natural areas which have been set aside for study and observation.
c. The third aspect of the Department's involvement in the "education" field is the one of training. The recently established King's Gap State Park is a training center for the Department's resource managers. Here they are trained to relate effectively to both the public they serve and the resource they manage.

4. That the Department expand the use of volunteer labor for operations and maintenance of its recreation areas.

Volunteer workers such as Boy Scouts, Girl Scouts, Civic Groups and private individuals will be encouraged to participate in various activities ranging from the construction of trails to cleaning up use areas.
5. That the Department encourage expanded conservation work programs during periods of high unemployment.

Currently, the Department is involved actively with various agencies in work programs such as the Youth Conservation Corps, Neighborhood Youth Corps and Operation Mainstream. Benefits of other programs will be investigated in terms of their potential for improvement of the Department's recreation system.
6. That the Department expand its response to the recreation needs of the urban resident by optimizing the use of State-owned urban resources, such as river corridors.

To utilize these river corridors, the Department will analyze flood plains, dams, islands, desilting basins and canals for their recreation potential and investigate, as may be required (1) ownership, (2) sensible uses and (3) appropriate management levels.
7. That an active cooperative effort be established with other public and private agencies for resource oriented recreation programming (i.e., teaching camping techniques, sailboating, boater safety skills and other beneficial uses of State parks and forest areas).

The initiation of recreation programming will be done through educational programs and exhibition or display. These programs can be carried out in cooperation with such organizations and agencies as the Fish Commission, Game Commission, Department of Education, Department of Public Welfare, Red Cross, Audubon Society, Pennsylvania Archery Association, Boy Scouts, Coast Guard and others.
8. That the Department explore effective methods for protecting natural resources on both public and private lands by means other than fee simple acquisition.

The protection of resources by means such as easements, rights-of-way, zoning, purchase and leaseback, land use restrictions, and land donations, among others, will be investigated. The Department will determine the methods best suited for protecting unique vegetation, river corridors, rare and endangered species, scenic amenities and other natural resources.
9. That the Department cooperate with other State agencies in the investigation of alternate modes of transportation to State recreation areas.

One of the major reasons many people are unable to use the State recreation system is their lack of mobility. Possible solutions to accessibility problems and their funding must be pursued.

10. That the Department inform the public of the low density recreation potential of State forest lands.

The Department will disseminate more information on recreational uses of State forest lands. These uses can consist of backpack camping, picnicking, cross-country skiing, hiking, nature study, photography, bird watching, canoeing, hunting and fishing, to name only a few of the activities associated with forest retreat.

11. That the Department reevaluate and update policies (and recommend legislative actions) which govern concessions to reflect current economic and recreation trends.

Use of private capital has long been advocated as a means of supplementing and complementing public recreation resources. The ability of public agencies to meet the demand of Pennsylvania citizens for more sophisticated and expensive recreation opportunities is becoming more and more difficult due to fiscal constraints; therefore, increased cooperation with private enterprise which can provide concessions to meet this demand is advisable.

12. That the Department stress the recreational uses of water supply impoundments.

Water supply impoundments are a great source of recreation opportunity. Other states have been using water supply impoundments both for water contact and nonwater contact recreational activity. Reservoirs could meet a substantial part of many of the recreation needs of Pennsylvanians, although additional development costs would be required.

13. That the Department continue its efforts to regulate, control and manage the use of off-road motor vehicles on State park and State forest lands and investigate the advisability of establishing and designating special areas specifically for mechanical vehicle usage.

The conflict between the use of motorized off-road vehicles and the quiet enjoyment of nature is apparent. Through proper planning this conflict can be minimized. Strip-mined areas and old quarries lend themselves readily to the use of motorized vehicles and with sensible development can be reclaimed for recreational use.

14. That the Department continue to emphasize its trail system by developing loop trails primarily on State lands and by identifying usable rights-of-way for recreation activities.

Conceptually, a cross-country trail system is very desirable as part of an overall recreation system. However, many people are more interested in shorter day or weekend hikes. Therefore, loop trails serving this need are necessary and, from an administrative, management, and acquisition standpoint, are more easily provided. Utility corridors and rights-of-way are a potential source for trail development if liability and site constraints, such as steepness of terrain and erosion, can be dealt with adequately. Also, railroad abandoments, wherever fee ownership is possible, can be used effectively.

15. That the Department increase emphasis on its public information awareness program.

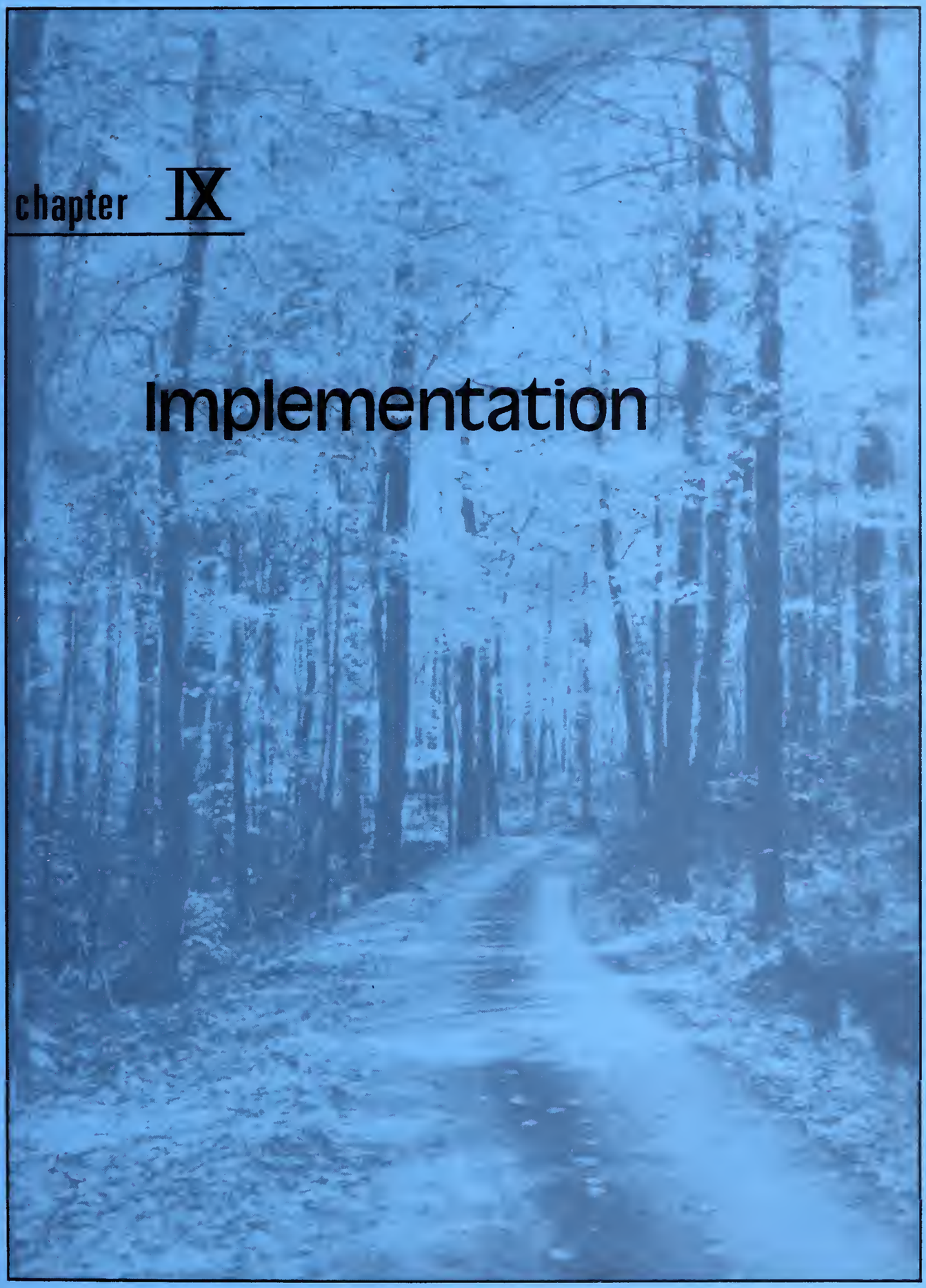
The policy guidelines of the Department's *Outdoor Recreation Horizons* emphasize the need for "providing the greatest benefit to the greatest number of citizens," and recognize that ... "the Department cannot function without the understanding and support of an informed citizenry." A system to disseminate information effectively both to park and forest users and non-users plays a great part in meeting these goals. The Department will increase its efforts to inform the public more adequately of its programs and activities.

16. That the Department establish and maintain management plans for each unit of its recreation system.

(a) It is essential that the planning, operation and maintenance of State parks result in a unified and sensitive treatment of these natural resources and their supporting physical plant.

(b) Safe and flexible facilities and programs that meet the public's current outdoor recreation and environmental education requirements are necessary. They shall be guided by a progressive management document which will be prepared for each unit in the system.

(c) Forest resource plans have been developed for the managment of timber, water, mineral and recreation resources on the two million acres of State forest land. These plans must be updated continually and revised as human wants and needs change.



chapter IX

Implementation

Chapter IX

IMPLEMENTATION

"Pennsylvania's Recreation Plan (1975) identifies recreation needs and makes recommendations which are expected to apply as late as 1990. Through Pennsylvania's recreation planning process, priorities for funding as well as for legislative and administrative actions are expected to change almost continually. As with any governmental action, policies and projects must change to reflect current evaluations of needs.

It is important to the public recreation business that a constant dialogue is carried on about what kinds of projects Federal, State and local governments are executing and why. In order to establish the framework for this dialogue and to initiate a more cohesive approach to the planning and provision of recreation programs and projects in Pennsylvania, the following priorities will be used to guide the actions of Commonwealth agencies where recreation is concerned. These priorities are based on the assessments of the statewide recreation needs identified in this plan and should also guide the actions of the private sector as well as Federal and substate government in the provision of recreation services.

1. High priority will be given to improving the financial, technical and administrative ability of local governments to provide community recreation facilities, adequate maintenance for those facilities, and comprehensive recreation programs.

2. High priority will be given to the acquisition of open space in or close by urban centers, particularly in flood prone areas.

3. High priority will be given to programs and projects which employ less than fee simple means of preserving or protecting recreational and open space areas. Foci of these programs include zoning, covenants, cooperative agreements, as well as other techniques.

4. High priority will be given to improvements to existing sites through adequate operation, maintenance and capital expenditures which increase the number or variety of recreation opportunities, extend the season of operation, provide easier access, improve operation and maintenance capabilities, or enhance the aesthetics of the recreation area.

5. High priority will be given to multiple use of school recreation facilities and adjacent land for the good of all community residents.

6. High priority will be given to new projects particularly those in parks close to urban centers which provide one or more of the following facilities: bicycle paths and/or modification of the existing road system to accommodate bicyclists, tennis courts, swimming facilities, ice-skating areas, playgrounds and hiking, walking or equestrian trails.

7. High priority will be given to providing increased public access along rivers and streams near population centers and at recreation destination points.

8. High priority will be given to the acquisition and/or development of or other forms of protection for areas of outstanding and unique ecological, geological, scenic, recreational, historical, aquatic and wildlife habitat value, wherever they are located, especially where the threat of loss is imminent.

9. High priority will be given to encouraging private business to provide one or more of the following recreation facilities: tennis courts, swimming areas, ice-skating areas, horse stables and trails, golf courses, ski slopes, and off-road vehicle recreation areas.

10. High priority will be given to providing increased accessibility to recreation facilities and programs, particularly for the handicapped, less mobile, and other recreationally disadvantaged residents of the Commonwealth.

11. High priority will be given to the development of a public information program to promote greater use of recreation areas, facilities and programs.

12. High priority will be given to the continued comprehensive statewide recreation planning efforts, as well as planning related to the various recreational programs of the participating State agencies.

13. High priority will be given to coordinating the implementation of recreation projects with other ongoing development or redevelopment activities. The latter includes such efforts as urban renewal, Appalachian development, or transportation facility construction.

It is easier to identify what it is that government should do to meet "needs" than it is to specify where the money should come from or to explain the most logical way to accomplish recreational objectives. All too frequently, plans call for grandiose funding for new projects. This plan hopes to achieve a more germane understanding of recreation needs.

The decision making process through which this plan will be modified and implemented is extremely complex. Some of the recommendations require the appropriation of new funds. In other instances, monies already exist or are earmarked for the purpose of implementing recommendations. In yet other instances, the recommendations for action are made on the basis of identified need, but without funds for implementation. In the latter case, the legislature must concur that such needs are important enough to justify funding.

Pennsylvania has several sources of funding which draw on its own internal resources. But in addition, the Federal Government offers some special assistance programs. These programs are usually intended to augment the State's capability to carry out specific functions. Pennsylvania now participates in a number of these special Federal programs.

The total spectrum of implementation of this plan includes actions which the Federal Government is responsible for, as well as local government and private enterprise.

The actions of the Federal Government as they relate to the provision of recreation opportunities in Pennsylvania are extremely complex. Yet, surprisingly, the implementation of the federal portions of this plan follow a format similar to that of the State and local governments.

MAJOR SOURCES OF FUNDING FOR RECREATIONAL PROJECTS

State Sources

Pennsylvania State Capital Improvements Program Allocations

The Capital Improvement Program is a unified series of budgeting steps designed to carry out the Commonwealth's policy goals. The end product of this process is an annual Capital Budget which sets forth, in financial terms, policy decisions about the distribution of available resources among all of the activities for which the Commonwealth is responsible. Traditionally, the Commonwealth has dedicated significant portions of the Capital Budget for the acquisition and development of State recreation projects.

The Capital Improvement Program is financed by thirty-year General Obligation Bonds issued by the Commonwealth. Agencies of State government which participate in the funding program include the Department of Environmental Resources, the Pennsylvania Historical and Museum Commission and, to a very limited extent, the Game and Fish Commissions. The budgeting procedure results in a five-year program with a one-year budget.

Generally, funds from this source have been used to acquire and develop State parks and related recreation facilities and to acquire and restore historic sites as well as museums.

Pennsylvania Land and Water Conservation and Reclamation Program. (PROJECT 500)

In 1967, through action on the part of the Legislature and by popular referendum, the citizens of the Commonwealth created a special grant-in-aid program which made $500 million available for conservation, reclamation, and recreational purposes through 1977. Because extensive State government reorganization has taken place since 1967, it is confusing to cite the original amounts of money allocated to specific agencies for specific purposes. Several of the agencies which administered funds under the P-500 act were merged into the Department of Environmental Resources when it was created in 1970. In essence, the purposes of the act were:

1. $200 million was allocated for the elimination of stream pollution from mine sources, for the restoration of strip mine lands, for the elimination of air pollution caused by burning coal refuse banks, for the extinguishing of surface and underground mine fires, and for actions to prevent subsidence in abandoned mines.
2. $100 million was allocated in State aid to local political subdivisions for the construction or improvement of municipal sewage treatment facilities.
3. $75 million was allocated for grant-in-aid assistance to local political subdivisions for the acquisition and development of public recreation areas and open space.

PROJECT 500 was financed through thirty-year General Obligation Bonds issued by the Commonwealth. Under this project funds were phased over a ten-year period to allow a smooth flow of projects. Because of the extreme demand placed on the local grant-in-aid phase of the program, however, the funding of that portion of the program was, through exceptional action of the legislature, allocated in its entirety in 1974. At the present time the Commonwealth does not have a State funded recreational grant-in-aid assistance program to local governments.

Generally, the Commonwealth has employed the State recreation portion of PROJECT 500 to build new State parks, fish hatcheries, lakes, ponds and access areas; to develop conservation areas, small game habitat and waterfowl areas; and to restore and develop historic sites and museums; to acquire and develop local park and open space areas; and to conduct studies to determine park and recreation needs and site specific development proposals.

The recreational provisions of PROJECT 500 were primarily intended to provide financial assistance to State agencies and local communities to help fulfill the objectives of the earlier PROJECT 70, the antecedent of PROJECT 500. The PROJECT 70 Land Acquisition and Borrowing Act was the first modern legislation enacted for the purpose of acquiring land and water

sites for conservation, recreation, and historical preservation purposes. Approved by the citizenry of Pennsylvania by referendum in 1963, this act proposed to invest $70 million by the year 1970 for recreation and conservation purposes.

Essentially, PROJECT 70 provided funds for the acquisition of recreation sites and PROJECT 500 provided funds for their development. During its existence (1964 through December 31, 1970) PROJECT 70 enabled the former Department of Forest and Waters (now the Department of Environmental Resources) to acquire 97,900 acres of additional land; the Game Commission, 24,000 acres; the Fish Commission, 7,200 acres; and local governments, through the Department of Community Affairs, 75,400 acres for a total authorized acquisition of 204,500 acres of land. Considering the amount of land acquired, the location of this land and its value to the residents of the Commonwealth, PROJECT 70 funds have been a wise investment of the taxpayers dollar.

Funds Received from the Sale of Hunting and Fishing Licenses

In Pennsylvania, the Fish Commission and the Game Commission are separate governmental entities supported almost entirely by the fees collected from the sale of hunting and fishing licenses. The activities of each agency are under the direction of separate, appointed commissions. In 1974, revenues to the Game Commission from the sale of hunting licenses, timber and gravel sales and fines were estimated to be $14.5 million. Although most of the revenue generated by the sale of hunting licenses is used to support the ongoing programs of the Game Commission, approximately $1.5 million is available annually for capital investment.

The Fish Commission received $9.7 million from the sale of fishing licenses, boat registrations fees, marine fuels tax and other revenues such as dredging royalties and fines for fishing, boating and pollution violations. Because most of the license sales income is used for Commission operations, only a modest amount is available from year to year for new capital projects.

Federal Sources

Federal Land and Water Conservation fund Program (P.L. 88-578 as amended)

The Federal Land and Water Conservation Fund Program, which originated in 1965, is supported by the revenues collected from off-shore leases and entrance and user fees at Federal recreation areas and is, in part, a grant-in-aid program to State agencies and local governments for recreational purposes. Funds from this program may be used by states for planning, acquisition, and development of needed recreational areas and facilities. Administered by the Bureau of Outdoor Recreation, Department of the Interior, this program provides an annual allocation to the Commonwealth which has amounted to $55 million since 1965. In 1974, the Commonwealth received an apportionment of $7.4 million. Monies from this program have traditionally been used both for State purposes as well as to augment the State's grant-in-aid capability to local governments. Participating agencies may receive up to fifty percent reimbursement of the cost of eligible projects.

The Federal Land and Water Conservation Fund is allocated by State Liaison Officers on the basis of needs identified in agency program plans and is used to balance overall recreational investments.

Special Federal Programs

1. Under the Community Development Act of 1974, the Federal Government, through the Department of Housing and Urban Development, makes funds available to communities for a variety of purposes. In essence, the CD monies can be used with a great deal of local discretion. This local discretion replaces a former system of categorical grants in which communities needed to apply to several different divisions or bureaus that administer funds under a particular title or section, each of which had separate project requirements.

Community Development monies may be used by local governments to help meet their recreation and open space needs. The only prerequisite for use of CD monies is that a community must have and maintain a development plan.

2. A second, relatively new source of funds, is money received by state and local governments under the Federal Revenue Sharing Program. Although there are a few use restrictions to the Federal Revenue Sharing Program monies, essentially, a community can do as it wishes with these funds. Communities can and generally have used revenue sharing to reduce local tax burdens and to undertake new capital projects and programs. Nationally, the experience has been that less than four percent of all funds received by local governments under this program have been earmarked for recreation programs.

3. The Federal Highway Beautification Program is administered by the Bureau of Public Roads, U.S. Department of Transportation. In essence, this Federal program makes reimbursement funds available to the State for three programs relating to highway beautification. Funds from the program are limited to use on roads which were constructed under the Federal Aid Highway Program. Funds may be used for removing unsightly billboards within 660 feet of Federal Aid Highways, to remove or screen junkyards within 1,000 feet of a highway, and to pay for the acquisition of scenic overlooks, rest areas, scenic easements and for

landscaping. In fiscal year 1974, Pennsylvania received $1.1 million for this program.

4. In 1973, the U.S. Department of Transportation determined that states could use up to $2 million of their annual highway assistance monies for the acquisition and development of bikeways. It has been only recently that the necessary design criteria have been developed by the Pennsylvania Department of Transportation, but the Department has not built any separate bikeways under this program. The list of desired bikeways is long and this Federal assistance program will not go very far in meeting the needs which have been identified. The program per se is small in comparision to the cost of bikeways, and it requires the State to divert matching money from highway construction or maintenance. The program's major drawback is not in its intent, but rather that there are no additional funds with which to execute it.

5. The Dingle-Johnson Act provides financial aid to states for cooperative programs to assist in research, development, land acquisition, and coordinative activities involving fish restoration projects. Funds under this act are administered by the Fish and Wildlife Service, U.S. Department of the Interior. In 1974, Pennsylvania received more than $334,000. This funding source is important in the implementation of the Fish Commission's part of the responsibility for providing recreation opportunities.

6. The Pittman-Robertson Act provides financial assistance to states for cooperative programs in research, development, land acquisition, wildlife restoration, and maintenance. One of the strongest programs of its kind, this Federal assistance program provides funds for the maintenance of projects devel-oped with PR monies. Funds under this act are administered by the Fish and Wildlife Service, U.S. Department of the Interior. In 1974, Pennsylvania, through the Game Commission, received more than $1.9 million.

7. The Small Watershed Act (P.L. 566 as amended) is administered by the Soil Conservation Service, U.S. Department of Agriculture, and provides funds to local sponsoring agencies to help pay the cost of constructing various flood control devices. Under this act the Department is authorized to pay up to fifty percent of the costs added to a project to accommodate recreation facilities. For most large scale acquisition and development programs, it is difficult to determine on a year to year basis exactly how much money is spent for a specific purpose. During fiscal year 1974, $17 million was allocated by SCS to projects in progress in Pennsylvania. Most of this $17 million went for the construction of small impoundments; only a small percentage was actually used under the fifty percent matching recreation program. Over the next five years, SCS estimates the expenditure of more than $5 million in the fifty percent matching recreation program.

In the past, the Department of Environmental Resources, the Fish Commission and the Game Commission have all participated as local sponsoring agencies in this program. While these State agencies will continue to consider this type of project in their future plans, a major constraint of this program in the past has been the length of time required to complete a small watershed project (generally 15 years).

8. The National Historic Preservation Act of 1966 (P.L. 89-665) is similar to the Federal Land and Water Conservation Fund Act. This Federal assistance program provides monies to states, local governments, and private, non-profit organizations for the purposes of acquiring, developing, and restoring sites of historic significance. The program is administered by the National Park Service, U.S. Department of the Interior. In 1974, the Commonwealth received $575,000 through the Pennsylvania Historical and Museum Commission. A program requirement is a Commonwealth Historic Preservation Plan. It is pursuant to the goals, objectives and priorities of that plan that the funds available under this act are expended. In future years, the Pennsylvania Historical and Museum Commission will be molding the Historic Preservation Plan into an overall agency management document which includes the management of museums.

CAPITAL EXPENDITURES OF FEDERAL AGENCIES

The U.S. Army Corps of Engineers

In Pennsylvania, there are four U.S. Army Corps of Engineers districts, each of which has the responsibility to monitor navigation on rivers and construct and maintain flood control structures which, in most cases, provide a great deal of recreation opportunity.

The capital which is expended by the four Corps districts is, to a large extent, contingent on Congressional authorizations. This makes it difficult to estimate the dollar amounts which will be available each year. At the present time, the Tioga Hammon Dam, Cowanesque Reservoir, acquisition of the Delaware Water Gap National Recreational Area and beach stabilization work at Presque Isle are the large projects by the Corps in Pennsylvania.

The U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service makes capital expenditures at three sites throughout the State, all of which affect the provision of adequate recreation

opportunities in the Commonwealth. These are the Tinicum National Environmental Center, the Lamar National Fish Hatchery, and the Erie National Wildlife Refuge.

The primary thrust of the projects undertaken by the the Fish and Wildlife Service is acquisition, although in the next several years a visitor and exhibit center will be provided at Tinicum.

The U.S. Forest Service

Pennsylvania has one national forest, the Allegheny, which is monitored and maintained by the U.S. Forest Service. The Forest Service is administratively couched in the U.S. Department of Agriculture and, like most large governmental organizations, operates through regional offices. In this instance, the regional office is extremely influential in the allocation of funds for acquisition and development projects.

Through advanced site planning, Pennsylvania, BOR, and the Allegheny National Forest planners have identified three main corridors within the forest boundaries which are of a high recreational priority. These corridors are: (1) the area adjacent to the Allegheny River from Kinzua Dam to the Tionesta Creek, (2) the Tionesta Creek from Lynch to the Allegheny River, and (3) the Clarion River from Ridgeway to Cook Forest State Park. The Forest Service has monies available to it from the Federal Land and Water Conservation Fund, as well as from the sale of timber and minerals. Recreational developments in the forest have been the traditional, out-of-door type and have reflected high quality site planning.

The National Park Service

Administratively organized in the Department of the Interior, the National Park Service maintains many nationally important historical and recreational sites in Pennsylvania. The only major development which is foreseeable in Pennsylvania for the National Park Service would be to take over the management of the Delaware Water Gap National Recreation Area when acquisition by the Corps of Engineers is completed.

The Park Service spends funds from both the Federal Land and Water Conservation Fund and other Congressional sources for acquisitions and developments important to existing Federal sites such as Independence National Historical Park, Hopewell Village, and the Allegheny Portage Railroad.

CAPITAL EXPENDITURES BY LOCAL GOVERNMENTS

The Bureau of Municipal Statistics within the Department of Community Affairs collects and makes available information concerning the fiscal affairs of local governments. On the basis of figures released by this Bureau some observations about the level of local recreation funding can be made.

In fiscal year 1973, about $27 million was spent for capital recreation projects, but unfortunately, the capital expenditures for the category "Parks and Recreation" are lumped together so that it is impossible to say with certainty what percentage of the $27 million was actually provided by other State, Federal or private funding sources. Also, it is not unusual that park lands are donated to municipalities by individuals or civic-minded groups. Thus, local investment in recreation and parks is even more difficult to assess. An educated guess, based on subtracting the total amount of State and Federal assistance monies available in fiscal year 1973, suggests that about $17 million was supplied by either local tax dollars or gifts.

On an annual basis, it is probably reasonable to assume that local government spends at least $20 million on park and recreation areas. However, the amount could be much higher.

COMMONWEALTH RECREATION PROGRAMS

Each year State agencies involved in the provision of recreation opportunities prepare a five-year agency program. These programs serve several functions. First, they help the agency see the links between their own planning process and meeting needs; second, they provide the Budget Office with an overview of what will be taking place within the State; thirdly, they facilitate interdepartmental coordination of projects; and fourth, they provide the circumspection which is needed in order to make decisions necessary to allocate discretionary funds, such as the Federal Land and Water Conservation Fund.

The agency recreation programs reflect the current thinking of agencies as to how they will proceed to fulfill their mandated responsibilities. The programs, presented in summary form here, are reflective of individual agency management plans and by-and-large are responsive to the needs identified in earlier chapters of this plan.

Department of Community Affairs

The major emphases of the Department's five-year recreation program are:

1. The establishment of a comprehensive develop-

ment policy which interrelates social-economic-physical components and assists in the establishment of a State land use policy.
2. Increasing the capabilities and effectiveness of local governments in identifying and meeting their needs and responsibilities.

Department goals will be implemented by the Bureau of Recreation and Conservation and local governments through the following recreation objectives:

1. To improve the quality of local public recreation areas, facilities, and programs.
2. To assist in providing adequate recreation facilities and programs at the local level.
3. To enhance community attractiveness through the preservation, conservation, and reclamation of land for open space purposes.
4. To encourage local governmental comprehensive and recreation planning in order to achieve the wise and considered expenditure of public funds for public recreation services.
5. To encourage intergovernmental cooperation in the planning, acquisition, development, and operation of park and recreation facilities and programs.
6. To provide, through research, planning and technical assistance programs, better information to local governments for consideration within their decision making processes.

On a matching basis, the Department will assist local governments in accomplishing these objectives from available funds. Funds received from the Federal Land and Water Conservation Fund Act will be made available to local governments through the Department of Community Affairs.

Allocation of Funds

To serve as a general guide, the Department will apportion forty-eight percent of DCA's portion of the Federal Land and Water Conservation Funds equally among its administrative regions. The remainder will be apportioned among the regions on the basis of population. This principle is comparable to that of the Federal Bureau of Outdoor Recreation's formula, which recognizes geographic as well as population needs.

The Department has not allocated funds along functional lines because of the critical need for both acquisition and development of municipal scale parks.

Financing Recreaction Projects

Various factors affect the financing of individual recreation projects. At the present time, there are four major fiscal programs available to local governments for the planning, acquisition and development of recreation areas and programs: (1) Federal Land and Water Conservation Fund Act, (2) General Revenue Sharing Act, (3) Housing and Community Development Act Funds, and (4) Local Capital Budgets.

The Department of Community Affairs will allocate funds for those projects which will serve the greatest number of people per dollar expended where such expenditures will assure the maximum accessibility to recreation opportunity, unencumbered by oppressive restrictions.

The Department of Community Affairs has developed a priority need indicator system for determining funding assistance ceilings for individual municipalities. The system relates median family income and per capita assistance. Median family income is considered by the Department to be the best single indicator of social and economic need. By interrelating the two components on a graph, a per capita funding curve, weighted by median family income, has been developed to give greater assistance in response to greater municipal need as evidenced by lower median family income. Along the curve, the maximum per capita assistance ascends as the municipality's median family income decreases and descends as its median family income increases. Standards, as they apply to specific projects, are those determined to be appropriate in the "Components Concept" of local recreation planning.

The Pennsylvania Department of Transportation

Although PennDOT does not formally prepare a five-year action program for recreation, information on what would be contained in such a program is presented here because it is of significance in implementing *Pennsylvania's Recreation Plan.*

PennDOT's activities affect the construction of tourist information centers and the construction of roadside rests and scenic overlooks on Interstate highways. These programs are reimbursable on a 90-10 matching basis under the Federal Interstate Highway Act. An estimate of the funds which will be available to Pennsylvania under this program in the 1975-80 period is $10 million.

Under the Highway Beautification Program, which supports the removal of outdoor advertising as well as the screening or removal of junkyards, PennDOT estimates the receipt of $18 million between 1975 and 1980.

A third funding source, which has the potential to improve the scenic value of Pennsylvania's highways, is the State Beautification Program which generates funds from the liquid fuel tax. This program should contribute about $250 thousand for plantings and erosion control.

In total, programs administered by PennDOT, which will affect the quality of scenic driving and sightseeing in Pennsylvania, will be on the order of $28

million for construction between 1975 and 1980.

Under the 1973 Federal Aid Highways Act, states are permitted to spend up to $2 million annually during the three year fiscal period 1974-1976. In theory, a total of $6 million would be available through PennDOT for the construction of completely independent bikeways. In fact, the program is a 70-30 matching program, which means that PennDOT would have to allocate 30 percent of the cost of any bikeway. PennDOT has determined that the only place where the State match could come from is the highway maintenance apportionment. However, because of the poor condition of many of Pennsylvania's highways, it is extremely unlikely that funds will be diverted from maintenance to bikeway construction. One option which PennDOT might be able to use would be to have the thirty percent match requirement met by some other State agency or by a local government or non-profit group.

It would appear that only the EPA mandated bikeways in Philadelphia and Pittsburgh will be built, and these are contingent on court battles yet to be fought. Consequently, the best assessment is that although, in theory, this money is available, in the practical sense, it is not.

Incidental bikeways, however, are being constructed at several locations including the Newtown bypass and the State College bypass and at several other locations throughout the State. These bikeways are within the right-of-way of highways under construction and are funded entirely through the existing reimbursement programs.

The Pennsylvania Game Commission

The Pennsylvania Game Commission's five-year Capital Recreation Program is composed of five basic elements: (1) Land Acquisition, (2) Game Habitat Improvements, (3) Access Development, (4) Waterfowl Improvement, and (5) Target Ranges.

The Commission plans to expend nearly $13.1 million between 1975 and 1980 on the acquisition of an estimated 45,000 acres of new game lands. Particular attention is paid to the acquisition of strip mine lands for reclamation and wetlands suitable for waterfowl development.

In the next five years, efforts will be made to purchase lands in closer proximity to the metropolitan areas of the State. Typical additional acquisitions will include interior holdings in existing game lands, and indentures in existing boundary lines. Generally, acquisitions are constrained by a per acre dollar limitation placed on the Commission. In the instance of assistance from BOR, the $100 per acre limit can be exceeded. Hence, the Commission prefers to use BOR funds to assist in acquisitions.

In cases where ownership of parcels of land is obscure, the Commission is able to use the power of condemnation. However, this procedure is exceptional. As a rule, the Commission purchases from willing sellers and is itself a willing recipient of land donations.

The Commission's recreation program indicates that more than $39.8 million will be expended on development projects. The major foci for scheduled development include game habitat for both large and small game, access roads, and parking spaces. Other types of development to be undertaken include the construction of target ranges to meet a portion of the sport shooting need and for use in hunter safety training, and the development of waterfowl sites.

During the 1975-1980 period, the Game Commission anticipates using approximately $4.9 million from the State Land and Water Conservation and Reclamation Fund for capital development. Another $34.9 million is expected to be available from the Federal Pittman-Robinson Program and from the sale of hunting licenses. As now envisioned, BOR money would be matched with revenues from the sale of licenses.

The Pennsylvania Fish Commission

The Pennsylvania Fish Commission's five-year Capital Recreation Program is composed of five basic elements: (1) the Hatchery Improvement Program, (2) the Administrative Facilities Program, (3) the Lake and Waterway Access Improvement Program, (4) the Stream and Waterway Improvement Program, and (5) the Lake Improvement Program.

The Commission has scheduled capital improvement costing approximately $12.7 million for the period from 1975 to 1980. Improvements to the hatchery rearing program include modernizing existing warm and cold water hatcheries as well as possible construction of a new fish hatchery. The estimated total cost of the Hatchery Improvement Program is $6.7 million. Federal Land and Water Conservation Fund monies will be used to augment the Commission's ability to carry out the Hatchery Improvement Program.

The Administrative Facilities Program is made up of law enforcement facilities, including boat docks and headquarters buildings, as well as maintenance administrative areas and improvements to structures used for inservice training. The estimated cost of the program through 1980 is $310,000.

The Lake and Waterway Access Improvement Program is very important in increasing fishing and boating opportunities. The estimated cost of this element is $4.6 million. The program calls for the acquisition and development of access ramps, parking spaces and sanitary facilities.

As a result of pollution and stream channelization, more than 5,000 miles of Pennsylvania's streams are unsuitable for fishing purposes. Under the Stream

Improvement Program, the Fish Commission plans and monitors stream improvements which improve the cover and carrying capacity of streams to facilitate an increase in aquatic life and recreational fishing opportunities. Most improvements will be accomplished by private organizations, under the direction of the Fish Commission. Improvements, although usually on public waters, may be performed on private waters if a 10-year minimum easement for public fishing rights is granted. Fish Commission funds and federal revenues from the Dingle-Johnson Program amounting to $260,000 are programmed for this purpose.

The Lake Improvement Program consists of rebuilding impoundments which have deteriorated. Frequently, this involves the removal of sediment from the impoundment area. The total cost of this program is estimated to be $800,000. Funds for this program will come from the sale of licenses, the boating fuel tax, and Federal revenues received under the Dingle-Johnson Program and the Land and Water Conservation Fund.

The Pennsylvania Historical and Museum Commission

The immediate objective of the Historical and Museum Commission recreation program is the development and preparation of Pennsylvania's historical sites, properties, and museums which deal with the American revolution period for the Bicentennial. During the Bicentennial, millions of visitors are expected at historical sites throughout Pennsylvania. The major thrust of the Commission's immediate program will be directed toward projects at Valley Forge, Washington's Crossing and the Brandywine Battlefield.

Following the initial additional capital investments needed to accommodate the Bicentennial, the Commission's program will resume the more thematical development of Pennsylvania's "Trail of History".

In the period 1975 through 1980, the Historical and Museum Commission's capital program is estimated to be $62 million. The vast majority of the funds necessary to implement this program are expected to come from the Legislature in the form of general appropriations. However, funds will be used, where appropriate, from Pennsylvania's Land and Water Conservation and Reclamation Program, the National Historic Preservation Fund Act of 1966, and the Federal Land and Water Conservation Fund Program.

In the past, the Commission's performance in terms of utilizing BOR funds has not been encouraging. Few projects have been found to be eligible for funding and, consequently, the Commission has not expended a great effort to use funds for allowable purposes.

The Department of Environmental Resources

The Department of Environmental Resources administers a wide range of environmental improvement programs which, although not part of the recreation program, do reflect on the quality of recreational opportunities. Included here are those programs which directly affect recreation opportunities, and can be summarized in terms of acquisition, development and management (operations and maintenance).

The Department of Environmental Resources anticipated an expenditure of 4.3 million dollars for new acquisitions in fiscal year 1975-76. Future expenditures for acquisition will be made focusing on (1) the consolidation of park lands and forests, (2) completion of the park system as conceptualized in "Outdoor Recreation Horizons," and (3) unique Wild and Scenic Rivers and unique or irreplaceable natural resources.

The Department of Environmental Resources has committed approximately 20 million dollars annually for capital development over the last five years. Projections which include all known sources of revenue, indicate that the development program will continue at a reduced rate of approximately 15 million dollars over the next five years. The development program will include the rehabilitation or renovation of structures and facilities, construction of new park facilities primarily to serve urban and urbanizing areas, and low density recreation development such as hiking trails, cross country skiing, back packing, etc.

In addition to capital programs for acquisition and development, a substantial portion of the Department's total recreation effort is carried out through programming and the efficient operations and maintenance of existing areas and facilities. In fiscal year 1975-76, the Department allocated approximately $17.1 million to operate and maintain the recreational system, including State parks and forests. Adequate maintenance must be assigned a high priority, and funds to increase the programming aspects of park operations are vital to the efficient use of State parks and forests as recommended in this plan. Measures which increase the effectiveness of DER's management and programming capabilities include: facility winterization, off-season park utilization, research on carrying capacity, use of volunteer labor to increase maintenance, capability, use of private investment in the form of concession services, and the management and regulation of ORV's on State-owned land.

The Department will also continue to expand its environmental education programming through its already established environmental education network. As a part of the total management effort, management plans for the various elements of the State recreation system will be prepared. Effort will be placed on increasing public informational services to the citizens of Pennsylvania concerning the opportunities offered by State parks and forests.

The Department of Public Welfare

Although the Department of Public Welfare does not prepare a five-year action program specifically for recreation, the Department does, however, regularly include the provision of recreation services in the program operating budgets of those institutions and facilities under its auspices. In addition, the Department places emphasis on the provision of community-based recreation services for handicapped and other recreationally disadvantaged persons by making State and Federal funds available to eligible persons and sponsoring agencies for participation in recreation programs. Funds for community-based recreation programs for handicapped and other recreationally disadvantaged persons may come from such sources as the Family Resource Services Program, Developmental Disabilities Service Grants, Title XX of the Social Security Act, and the Mental Health/Mental Retardation Program.

Finally, the Department of Public Welfare has become actively involved with other State and local agencies and organizations in the process of facilitating the increased accessibility to community recreation facilities and programs particularly for the handicapped and other recreationally disadvantaged residents in the Commonwealth.

COMMONWEALTH RECREATIONAL PLANNING PROGRAM

In accord with the Bureau of Outdoor Recreation's Option II state recreation planning requirement, the Commonwealth's Recreational Planning Process is structured as a five-year program whose product will be a new and updated recreation plan in 1980. This is the first time that the Commonwealth has undertaken a recreation planning program of this duration. It is the Commonwealth's intention to maintain *Pennsylvania's Recreation Plan* on an annual basis rather than for a fixed number of years. The plan has been prepared in a loose-leaf format to accommodate the changes in content that are characteristic of a sustained planning process.

Recreation planning and research are part of the responsibility of each of the five major State agencies directly involved in the expenditure of monies from the Federal Land and Water Conservation Fund. The coordination of these separate planning efforts is the responsibility of the Office of State Planning and Development which chairs the Commonwealth Interagency Recreation Planning Committee. One of the major functions of the committee is that it provides a formal means through which specific recreation objectives can be coordinated. The exchange of insight results in a planning process that discourages a system in which agencies or bureaus compete with one another in demonstrating that the recreation needs which their programs address are the most pressing and should receive the most attention. To this end, OSPD's role in this context of coordinated planning is to undertake those planning and research studies which contribute to circumspective evaluation of priorities, such as estimating and projecting recreation demand; synthesizing findings, needs and recommendations; and collecting inventory information.

Since the Office of State Planning and Development functions as the administrative vehicle for all BOR planning projects, all work which is related to the continuing planning process of updating *Pennsylvania's Recreation Plan* will be done contractually with OSPD. This, however, does not preclude contributory work done by other State agencies.

In conclusion, it is worthwhile to determine specifically, as it appears now, what needs to be done in the next five years to keep this plan current or to improve it. Consequently, the following pages will analyze synoptically, chapter by chapter, what has been done and what needs to be done.

Chapter I—Introduction and Summary

The summary of chapter contents and findings will be modified, as needed, to reflect changes in the plan resulting from work done in the continuing planning process. Also, an Executive Summary will be published and distributed at least once every five years.

Chapter II—Natural Setting

The history, physiography and climate of the State should not, of course, undergo any detectable change in the next five years. However, the sections dealing with population and demographic characteristics will be updated every five years.

Chapter III—Roles and Responsibilities

It is quite possible that reorganizations in State and Federal Governments will occur in the next five years. Should such changes transpire, they will be explained in this chapter. The legal and quasi-legal framework for recreation is important to administrators and should be kept up-to-date.

Chapter IV—Supply of Recreation Areas and Facilities

Each of the State agencies which provide recreation areas and facilities will update its files and transmit pertinent changes to OSPD so that the master computer

list can also be changed. It should be noted that in addition to updating the master file, OSPD will provide, as a service, the listings of the recreation inventory to governmental agencies and consulting firms.

Numerous special arrangements have been made to keep the inventory current. Most of these will be to maintain and update governmentally-owned facilities. However, other efforts will focus on the kinds of recreation facilities which have not been investigated in depth in this inventory. Through the Department of Education exceptional efforts will be made to reinventory school sites. The Commonwealth will also test a technique for sampling and estimating private recreation supplies. Other new work is expected to include detailed inventories of candidate wild and scenic rivers, an inventory of State trails, an inventory of wetlands and wildlife habitat, and inventories necessary to a statewide open space study.

Chapter V—Estimates and Projections of Recreation Demand

One of the highlights of this plan is the demand survey which analyzes the relationships between recreation supply and demand more thoroughly than had ever been attempted in a State recreation plan. The data which was gathered in this survey provided the basis for many of the observations in the "Needs" chapter. However, the quantity of the data was so great that subsequential analyses, which will be beneficial to the comprehensive planning process, are necessary to maximize its utility. Consequently, the need to redo a demand survey is not anticipated.

Nevertheless, there are aspects of recreation demand that were not included in the survey but which should be investigated. Foremost, is the "leisure time" concept of which outdoor recreational activity is a part. The issues here are the relationships between active, outdoor activity, such as tennis, and the more relaxing, inactive kinds of activity such as cards, reading, spectator sports, etc. The importance in determining the nature of this relationship is that it assists government in defining its responsibilities in providing recreational opportunity, or, to put it another way, it helps to delineate the extent to which government should compete with other attractions for people's leisure time. Also involved is the fact that increased supply in activities, other than those that are stable, increases demand which, of course, increases the supply needs. Therefore, by responding to facility needs in certain activities, government will, in effect, also advocate increased participation and thus magnify the scope of its own involvement. Clarification of responsibilities and roles, not just a statistical predisposition, then, is the beneficiary of this approach.

In addition to investigating the "leisure time" concept, a cross-correlation of the demand survey and the measured participation at sample recreation sites will be conducted. Also, recreational activity related to remote settings needs further study. A means should be developed to quantify participation in backpacking, cross-country skiing, hiking, and birdwatching, to name the most popular kinds of remote recreational activity.

Chapter VI—Needs

Analytically this is the most important chapter in the plan. Most of the other work done on the plan either helps to support the needs finding or recommends ways in which the identified needs can be met. In Pennsylvania's plan, the contents of the needs chapter will change just as rapidly as data is collected and analyzed and supports new or different conclusions.

In future years, Pennsylvania will be undertaking studies which shed light on previously neglected elements of the recreation system. Studies of maintenance and operation, programming of facilities, access, marketing and public relations are seen as major contributions to new and more meaningful needs articulation. Projects are already underway in the Departments of Environmental Resources and Community Affairs which will help to define maintenance costs and costing. Although it is impossible to anticipate the results of the many important studies which are being undertaken throughout state government, the major thrust in programs for the next several years will emphasize optimizing use, ascertaining true costs, and developing marketing and publicity techniques.

Another major area of importance to Pennsylvania's future recreation and open space program is a medium for expressing open space needs. For many years recreation areas and open space have been lumped together in planning studies. Through detailed studies recommended elsewhere in this plan, it is expected that within the five-year period of this program more definitive statements can be made about the need for open space, as differentiated from recreation space.

Chapter VII—Commonwealth Recreation Policy

Policy statements are developed through the Interagency Recreation Planning Committee. The committee will revise policies as it deems necessary.

At the present time, there is only one separate policy study underway which might directly affect change in this plan's policies. This is the Pennsylvania Bicycle Policy Study. However, as work begins on a State Trails System and as work is completed on the Statewide Land Use Plan, subsequent considerations will be deliberated.

Chapter VIII—Recommendations for Action

The recommendations in this plan are limited to the practical. They are the result of an understanding of recreation needs, legislatively mandated responsibilities, bureaucratic procedure, and the insight that administrative experience engenders. They can be achieved.

Although it is the opinion of this plan that there are disfunctional redundancies between the programs and projects offered by several agencies, there are no serious interagency differences in the perception of priorities for actions not legislatively mandated. One of the purposes of the Interagency Recreation Planning Commission is to monitor all agency plans and programs to avoid duplication and waste before it occurs.

Another recommendation which is not addressed in this plan, but which must be dealt with at some future time, is the question of the entire administrative structure through which recreation opportunities are provided. The Recreational Planning Process and the active participation of each agency minimizes the need for structural realignments, but there are weaknesses in the Pennsylvania recreation system which should be addressed.

Since one of the main purposes of a plan is to make recommendations, modifications in this plan will be reflected in the modifications in the recommendations it makes.

The planning process will maintain a continuing effort to monitor proposed Federal and State legislation making appropriate comments through the Office of the State Liaison Officer. Legislation which advances the objectives of the planning process will be advocated.

Chapter IX—Implementation

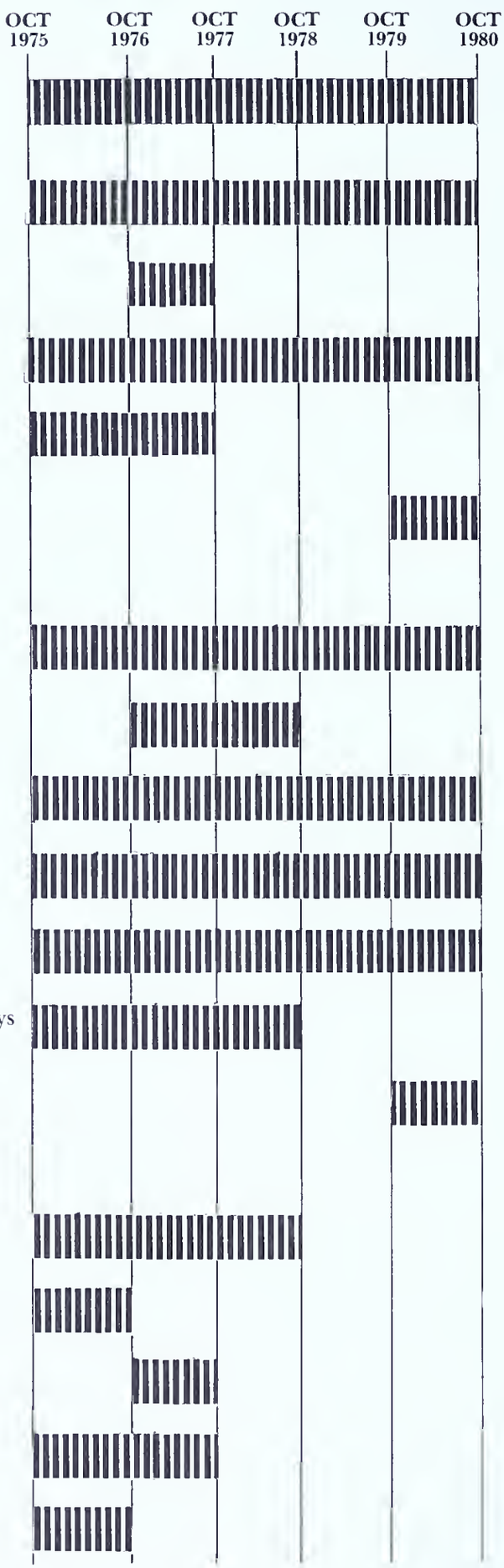
As changes which substantively influence the implementation of the plan, such as new funding levels or changes that would allow the funding of a broader base of projects occur, appropriate changes will be made in this section of the plan.

Individual agency management plans, from which program statements have been taken, will be updated, as necessary, to express new agency responsibilities or new interpretations of existing responsibilities. At the writing of this plan, the Department of Environmental Resources envisions updating its agency management plan beginning in 1976 and extending probably through 1978. The Department of Community Affairs has amassed a library of technical assistance manuals and planning assistance documents, including the "Components Concept" manual, which will be evaluated during the next five-year planning period. DCA's agency management statement, although different from those of other State agencies because it deals with how assistance is to be provided rather than how facilities will be managed, will be updated. At this time, other State agencies do not foresee a major need for updating their management plans.

Five-year agency budgets, which have been submitted with this plan, will be analyzed at approximately five-year intervals. While it is thought that program information is important to review, assessment of budgets, because of their somewhat tenuous nature, are not a particularly useful planning tool.

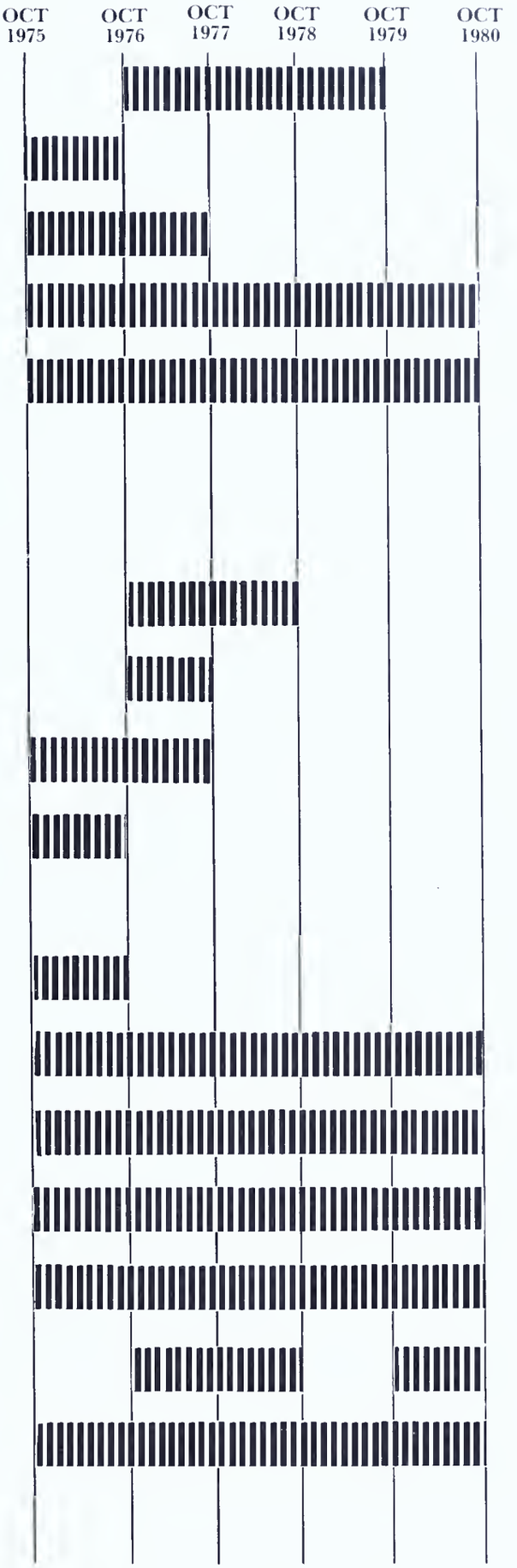
The following statement on planning programs will be modified annually, as needed, as part of the annual report required under BOR Option II.

COMMONWEALTH OF PENNSYLVANIA
RECREATION PLANNING PROGRAM



	AGENCY	FUNDING REQUIREMEN
INTERAGENCY RECREATION PLANNING COMMITTEE	All Agencies	$15,000 - Annually
INVENTORY MAINTENANCE		
Computer Programming	OSPD	$10,000 Annually
A—(Experiment) sampling of private recreation areas and facilities	OSPD/Consultant	$25,000
B—Local government inventory and verification	DCA	$3 - 4,000
C—Cooperative schools inventory	DE/DER/DCA/ OSPD	$2 - 3,000
D—Republish data	OSPD	$400 ±
DEMAND ANALYSIS		
Computer Programming	OSPD	$2,000 - Annually
A—Conceptual expansion leisure time - time budget	All Agencies/ Consultant	$50,000
B—Local user profiles and attendance survey	DCA	$6,000
C—State park and forest use surveys	DER	$30,000
D—Game, fish and historical use survey	GC/FC/HMC	?
E—Indoor user profile and attendance surveys	DCA	$8,000
F—Publish data	OSPD	$500±
NEEDS ANALYSIS		
A—The need for public and private open space (built on metro study)	All Agencies	$70,000
B—Facility needs (quantification statewide)	OSPD/Consultant	$8,000
C—Special handicapped needs	OSPD/Consultant	$8,000
D—Facility maintenance and program needs (local)	DCA/Consultant	$40,000
E—State parks maintenance needs (now underway)	DER	Internal

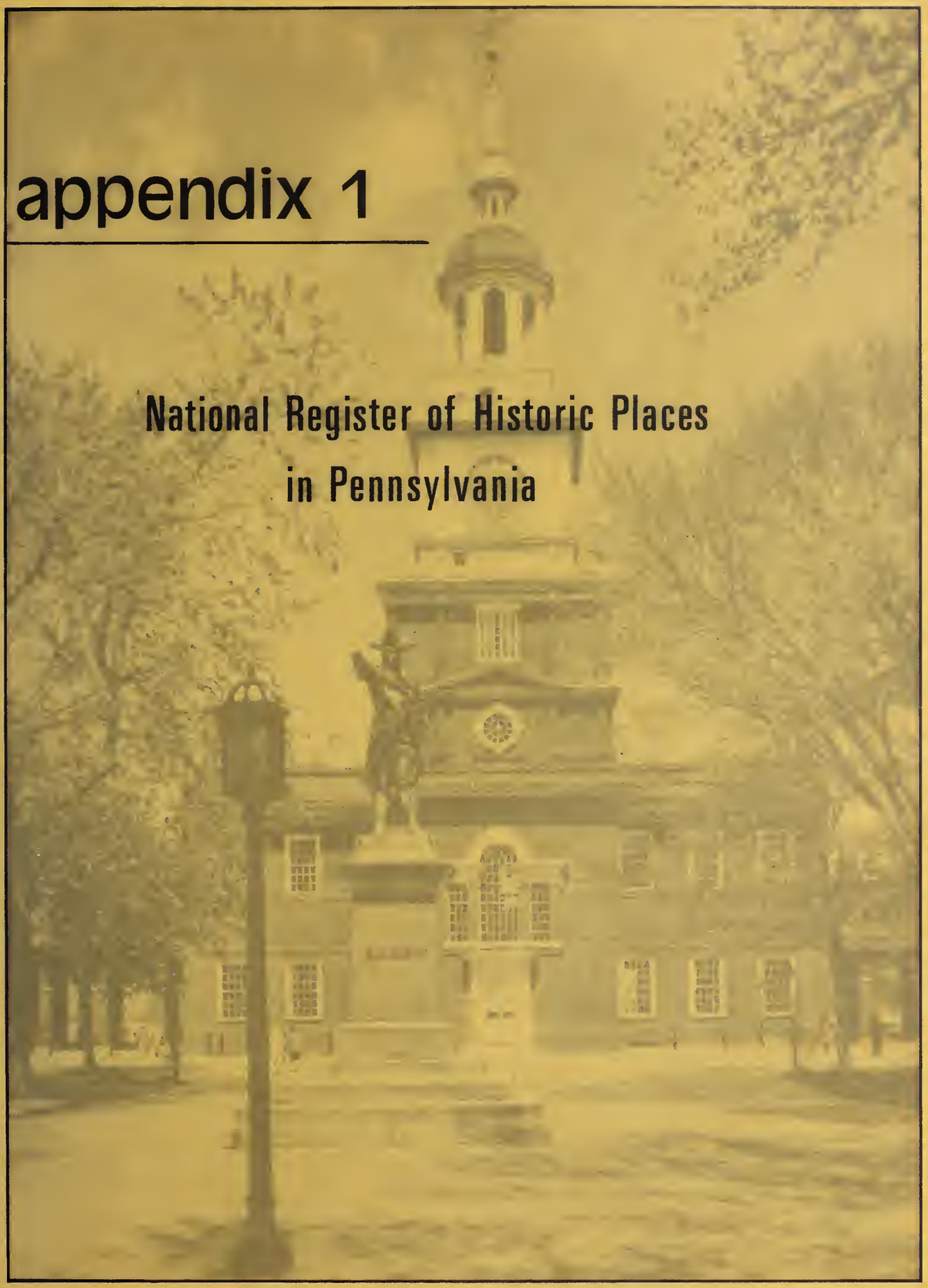
COMMONWEALTH OF PENNSYLVANIA
RECREATION PLANNING PROGRAM



	AGENCY	FUNDING REQUIREMENTS
'—State trails system	DER/etal	?
;—Compenents concept evaluation	DCA	$4,000
H—Private recreation potential in Penna.	OSPD Commerce/ Consultant	$25,000
—Regional needs - citizen participation	OSPD/Regional Planning Agencies	?
—Publish findings	OSPD	$500±
MPLEMENTATION		
—Update agency management plans		
—Outdoor Recreation Horizons	DER	$10,000
:—Historic Preservation Plan	HMC/Consultant	?
—Fish	FC	$2,000— Annually
—DCA Local Government Recreation Plan	DCA	$10,000
—Game	GC	
3—Prototype Aerial Recreation Studies - Schuylkill	DER	$55,000
C—Scenic Rivers Study	DER	$35,000
D—Local Government Technical Assistance	DCA	$30,000— Annually
E—Option II Annual Report	OSPD	$2,000- Annually
F—Legislation (state and federal) monitoring	All Agencies	$10,000 Annually
G—Revised agency program and planning statements	All Agencies/OSPD	?
H—Study the provision of mass transit for recreation	PennDOT/Consultant	?

appendix 1

National Register of Historic Places in Pennsylvania



Appendix 1

NATIONAL REGISTER OF HISTORIC PLACES

All historical areas in the National Park System and the sites and structures which are designated National Historic Landmarks by the Secretary of the Interior are of national significance and thus qualify automatically for the National Register. Properties of state or local significance may be nominated for the register by the State Liaison Officer appointed by the Governor. A professional staff conducts a statewide historic survey and reports its findings to a professional review committee. If the site meets the National Register criteria, the committee recommends it to the National Park Service.

The following criteria are designed to guide the states and the Secretary of the Interior in evaluating potential entries to the National Register.

The quality of significance in American history, architecture, archeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

1. that are associated with events that have made a significant contribution to the broad patterns of our history; or
2. that are associated with the lives of persons significant in our past; or
3. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
4. that have yielded, or may be likely to yield, information important in prehistory or history*

Because the Philadelphia area was one of the colonial cultural centers while the United States was declaring its independence, many sites and structures in that area are of national historic importance. Of the 402 historic sites in Pennsylvania on the National Register, 226 are in Uniform Planning Region One (Philadelphia, Bucks, Delaware, Montgomery and Chester Counties). Sixty-three of these sites are National Historic Landmarks and seven are also National Historic Sites or Parks operated by the National Park Service (see Map 1 in Chapter IV). Table 1 lists the name and location of all National Register sites in the Commonwealth.

* National Park Service, U. S. Department of the Interior, *National Register of Historic Places*, Volume 39, Number 34 (Washington, D.C. February 19, 1974) p. 6407.

TABLE 1

NATIONAL REGISTER OF HISTORIC PLACES IN PENNSYLVANIA

Adams County

1. FAIRFIELD INN, Main Street, Fairfield
2. ADAMS COUNTY COURTHOUSE, Baltimore and W. Middle Streets, Gettysburg
3. DOBBIN HOUSE, 89 Steinwehr Avenue, Gettysburg
4. GETTYSBURG NATIONAL MILITARY PARK, Gettysburg
5. LUTHERAN THEOLOGICAL SEMINARY—OLD DORM, Seminary Ridge, Lutheran Theological Seminary campus, Gettysburg
6. PENNSYLVANIA HALL, Gettysburg College campus, Gettysburg
7. EISENHOWER NATIONAL HISTORIC SITE, southwest edge of Gettysburg National Military Park, Gettysburg vicinity
8. GREAT CONEWAGO PRESBYTERIAN CHURCH, Church Road, Hunterstown
9. JOHN'S BURNT MILL BRIDGE, southwest of New Oxford at South Branch of Conewago Creek

Allegheny County

10. CARNEGIE FREE LIBRARY OF BRADDOCK, 419 Library Street, Braddock
11. NEVILLE HOUSE, south of Heidelberg on Pennsylvania 50
12. OLD BURTNER STONE HOUSE, Burtner Road, northwest of Natrona Heights
13. ALLEGHENY COUNTY BUILDINGS, 436 Grant Street, 420 Ross Street, Pittsburgh
14. ALLEGHENY POST OFFICE (OLD NORTH POST OFFICE), Allegheny Center, Pittsburgh
15. BUTLER STREET GATEHOUSE, 4734 Butler Street, Pittsburgh
16. BYERS—LYONS HOUSE, 901 Ridge Avenue, Pittsburgh
17. CARNEGIE FREE LIBRARY OF ALLEGHENY, Allegheny Center, Pittsburgh
18. EMMANUEL EPISCOPAL CHURCH, North and Allegheny Avenues, Pittsburgh
19. EVERGREEN HAMLET, Evergreen Hamlet Road, Pittsburgh
20. GARDNER—BAILEY HOUSE, 124 W. Swissvale Avenue, Pittsburgh
21. HEATHSIDE COTTAGE, 416 Catoma Street, Pittsburgh

108. WETHERLY—HAMPTON—SNYDER—WILSON—ERDMAN LOG HOUSE, 251 Irish Road, Tredyffrin
109. CRESSBROOK FARM (DUPORTAIL'S QUARTERS), south of Valley Forge off U. S. 76
110. NICHOLAS EAST HOUSE, west of Valley Forge on Kimberton Road
111. WHARTON ESHERICK STUDIO, southwest of Valley Forge off Country Club Road
112. DAVID HARVARD HOUSE (LEE AND BRADFORD QUARTERS), south of Valley Forge off U. S. 76
113. LAFAYETTE'S QUARTERS, southeast of Valley Forge on Wilson Road
114. LIGHTFOOT MILL, west of Valley Forge off Pennsylvania 401
115. MAJOR GENERAL STIRLING QUARTERS, south of Valley Forge on Yellow Springs Road
116. PHILIP ROGERS HOUSE, Ridge Road, Warwick Township
117. CHESTER COUNTY COURTHOUSE, 10 North High Street, West Chester
118. COLLINS MANSION, 633 Goshen Road, West Chester
119. FIRST PRESBYTERIAN CHURCH OF WEST CHESTER, 130 West Miner Street, West Chester
120. NATIONAL BANK OF CHESTER COUNTY, 17 North High Street, West Chester
121. STRODE'S MILL (ETTER'S MILL), intersection of Pennsylvania 100-52 and County Route 15087, West Chester
122. OLD KENNETT MEETINGHOUSE, south of West Chester on U. S. 1 east of junction of Pennsylvania 52
123. ORTHODOX MEETINGHOUSE, southwest of West Chester on Birmingham Road

Clinton County

124. HEISEY HOUSE, 362 East Water Street, Lock Haven
125. WATER STREET DISTRICT, Lock Haven

Crawford County

126. BALDWIN—REYNOLDS HOUSE, Terrace Street, Meadville

Cumberland County

127. PEACE CHURCH, northwest corner of the intersection of State Route 641 and St. John's Road, Camp Hill
128. HESSIAN POWDER MAGAZINE, Guardhouse and Garrison Lanes, Carlisle
129. JOHANNES EBERLY HOUSE, northeast of Mechanicsburg off U. S. 11
130. WIDOW PIPER'S TAVERN (OLD COURTHOUSE), southwest corner of King and Queen Streets, Shippensburg

Dauphin County

131. BROAD STREET MARKET, Verbeke Street between 3rd and 6th Streets, Harrisburg
132. JOHN HARRIS MANSION, 219 South Front Street, Harrisburg
133. WALNUT STREET BRIDGE, Walnut Street at Susquehanna River, Harrisburg
134. ST. PETER'S KIERCH, 31 West High Street, Middletown

Delaware County

135. PONT READING, 2713 Haverford Road, Ardmore
136. CHINCHESTER FRIENDS MEETINGHOUSE, 611 Meetinghouse Road, Boothwyn
137. THOMAS MASSEY HOUSE, Lawrence Road, opposite Springhouse Road, Broomall
138. CHADDS FORD, intersection of U. S. 1 and Pennsylvania Route 100, Chadds Ford
139. CHADD HOUSE, Pennsylvania 100, Chadds Ford
140. GILPIN HOMESTEAD, Harvey Road, Chadds Ford
141. WILLIAM PAINTER FARM, 2 miles northeast of Chadds Ford on U. S. 1
142. TWADDELL'S MILL AND HOUSE, south of Chadds Ford on Rock Hill Road
143. OLD MAIN, 21st Street and Upland Avenue, Chester (Upland)
144. WILLIAM PENN LANDING SITE, Penn and Front Streets, Chester
145. 1724 CHESTER COURTHOUSE, Market Street below Fifth Street, Chester
146. IVY MILLS HISTORIC DISTRICT, corner of Ivy Mills and Pole Cat Roads, Concord Township
147. CONCORDVILLE HISTORIC DISTRICT, intersection of Concord Road and U. S. 1, Concordville
148. NICHOLAS NEWLIN HOUSE, Concord Road, Concordville
149. THE LAZARETTO, Wanamaker Avenue at Second Street, Essington
150. FEDERAL SCHOOL, Haverford—Darby Road, Haverford
151. NITRE HALL, Karakung Drive, Haverford
152. OLD ROSE TREE TAVERN, junction of Rose Tree and Providence Roads north of Media

153. MORTON HOMESTEAD, 100 Lincoln Avenue, Prospect Park
154. CHESTER CREEK HISTORIC DISTRICT, encompasses the flood plains and bluffs of the West Branch of Chester Creek, Thornbury
155. GEORGE K. CROZER MANSION, Sixth Street, Upland
156. CALEB PUSEY HOUSE, 15 Race Street, Upland
157. THOMAS LEIPER ESTATE, Avondale Road, Wallingford
158. FORGE HILL, off U. S. 1, Wawa

Erie County

159. CASHIER'S HOUSE, 413 State Street, Erie
160. OLD CUSTOMSHOUSE, 409 State Street, Erie
161. U.S.S. NIAGARA, State Street at Lake Erie, Erie

Fayette County

162. BRIER HILL, on U. S. 40, Brier Hill
163. PETER COLLEY TAVERN AND BARN, on U.S. 40, Brier Hill
164. FALLINGWATER, off Pennsylvania 381, Mill Run vicinity
165. ISAAC MEASON HOUSE (DR. CHRISTOPHER GIST PLANTATION), U. S. 119 North, Mount Braddock vicinity
166. SEARIGHT'S FULLING MILL, Cemetery Road, Perryopolis
167. FORT NECESSITY NATIONAL BATTLEFIELD, 11 miles east of Uniontown on U. S. 40
168. THOMAS GADDIS HOMESTEAD, off U. S. 119, south of Uniontown

Franklin County

169. JOHN BROWN HOUSE, 225 East King Street, Chambersburg
170. FRANKLIN COUNTY COURTHOUSE, 1 North Main Street, Chambersburg
171. FRANKLIN COUNTY JAIL, northwest corner of King and Second Streets, Chambersburg
172. JAMES FINLEY HOUSE, Building 505, Letterkenny Army Depot, Chambersburg vicinity
173. MARTIN'S MILL COVERED BRIDGE, southwest of Greencastle across the Conococheague Creek
174. OLD BROWN'S MILL SCHOOL, off U. S. 11, Kauffman
175. LANE HOUSE, 14 North Main Street, Mercersburg
176. WOODLAND, southwest of St. Thomas on Pennsylvania 416

Greene County

177. HUGHES HOUSE, Hatfield Street, Jefferson
178. GREENE HILLS FARM, 3.5 miles east of Waynesburg on Pennsylvania 21

Indiana County

179. JOHN B. McCORMICK HOUSE, west of Georgeville off Pennsylvania 210
180. OLD INDIANA COUNTY COURTHOUSE, 601 Philadelphia Street, Indiana

Juniata County

181. TUSCARORA ACADEMY, 8 miles south of Mifflintown at the intersection of Routes 34005 and 34028

Lackawanna County

182. TRIPP FAMILY HOMESTEAD, 1011 North Main Avenue, Scranton

Lancaster County

183. CENTRAL MARKET, William Henry Place, Lancaster
184. ANDREW ELLICOTT HOUSE, 123 North Prince Street, Lancaster
185. HANS HERR HOUSE, 1851 Hans Herr Drive, Lancaster
186. OLD CITY HALL, Penn Square, Lancaster
187. SOLDIERS AND SAILORS MONUMENT, Penn Square, Intersection of King and Queen Streets, Lancaster
188. CONESTOGA TOWN, 1.25 miles south of Letort
189. JULIUS STURGIS PRETZEL HOUSE, 219-221 East Main Street, Lititz
190. CENTRAL HOTEL/A. BUBE'S BREWERY, 102 North Market Street, Mount Joy
191. STRICKLER SITE, south of Washington Borough

Lebanon County

192. CORNWALL AND LEBANON RAILROAD STATION, 161 North 8th Street, Lebanon
193. ST. LUKES EPISCOPAL CHURCH, Sixth and Chestnut Streets, Lebanon
194. UNION CANAL TUNNEL, west of Lebanon off Pennsylvania 72
195. ISAAC MEIER HOMESTEAD, 520 South College Street, Myerstown
196. HOUSE OF MILLER AT MILBACH, southwest of Newmanstown

197. BRENDLE FARMS, intersection of Routes 501 and 897, Schaefferstown

Luzerne County

198. ECKLEY HISTORIC DISTRICT, Eckley
199. DENISON HOUSE, 35 Denison Street, Forty Fort
200. GEORGE GATLIN HALL (REYNOLDS HOUSE), 92 South River Street, Wilkes-Barre
201. McCLINTOCK HALL, 44 South River Street, Wilkes-Barre
202. WEISS HALL, South River Street, Wilkes-Barre

Lycoming County

203. POST OFFICE, West Fourth Street between Government Place and West Street, Williamsport
204. KIDD'S MILLS COVERED BRIDGE HISTORIC DISTRICT, 5 miles south of Greenville off Pennsylvania 58
205. NEW HAMBURG HISTORICAL AREA, 7 miles south of Greenville off Pennsylvania 58
206. JOHNSTON'S TAVERN, 6 miles south of Mercer on U. S. 19

Mifflin County

207. McCOY HOUSE, 17 North Main Street, Lewistown

Monroe County

208. ZION LUTHERAN CHURCH, off River Road, East Stroudsburg vicinity
209. QUIET VALLEY FARM, southwest of Stroudsburg off U. S. 209

Montgomery County

210. MILL GROVE, Pawling Road, Audubon
211. BRYN MAWR (HARRITON), 500 Harriton Road, Bryn Mawr
212. EVANSBURG HISTORIC DISTRICT, on U. S. 422, bounded by Cross Keys Road, Grange Avenue, Mill Road and Ridge Pike, Collegeville vicinity
213. KUSTER MILL, on Skippack Creek at Mill Road and Water Street Road, Collegeville vicinity
214. MOUNT JOY (PETER LEGAUX MANSION), North Lane and Hector Street, Conshohocken
215. ANSELM HALL, 915 Spring Avenue, Elkins Park
216. SKIPPACK BRIDGE, east of Evansburg on Pennsylvania 422
217. KNURR LOG HOUSE, Meng Road, Delphi
218. FARMAR MILL, north of Flourtown junction of U. S. 309 and Pennsylvania 73, Fort Washington
219. HOPE LODGE, 553 Bethlehem Pike, Fort Washington
220. KLEIN MEETINGHOUSE, Maple Avenue, Harleysville
221. BERGY BRIDGE HISTORIC DISTRICT, northwest of Harleysville off Pennsylvania 63
222. ALAN W. CORSON HOMESTEAD, northeast of Harmonville at 5130 Butler Pike
223. EDWARD MORGAN LOG HOUSE, off Pennsylvania 363 on Weikel Road, Kulpsville vicinity
224. DIELMAN KOLB HOMESTEAD, south of Lederach on Kinsey Road
225. ANDREAS RIETH HOMESTEAD, southeast of Pennsburg on Geryville Pike
226. HOVENDEN HOUSE, BARN, AND ABOLITION HALL, No. 1 East Germantown Pike, Plymouth Meeting
227. PLYMOUTH FRIENDS MEETINGHOUSE, corner of Germantown and Butler Pikes, Plymouth Meeting
228. PLYMOUTH MEETING HISTORIC DISTRICT, contained within a rectangle, Plymouth Meeting
229. POTTSTOWN ROLLER MILL, South and Hanover Streets, Pottstown
230. POTTSGROVE MANSION, west of Pottstown on Benjamin Franklin Highway (High Street)
231. JOHN ENGLEHARDT HOMESTEAD, west of Schwenksville off Pennsylvania 73 on Keyser Road
232. CONRAD GRUBB HOMESTEAD, northwest of Schwenksville off Pennsylvania 73 on Perkiomenville Road
233. LONG MEADOW FARM, northwest of Schwenksville on Pennsylvania 73
234. COLE HOUSE (KIDDER—DE HAVEN HOUSE), Skippack Pike and Evansburg Road, Skippack
235. LANDIS HOMESTEAD, southwest of Tylersport off Pennsylvania 563 on Morwood Road
236. PETER WENTZ HOMESTEAD, off Pennsylvania 73 on Shultz Road, Worcester Township

Northampton County

237. BETHLEHEM HISTORIC DISTRICT I, NEW STREET, COUNTY LINE, HILL BRIDGE, First Avenue and Broad Street, Bethlehem
238. GRIST MILLER'S HOUSE, 459 Old York Road, Bethlehem
239. MORAVIAN SUN INN, 564 Main Street, Bethlehem
240. THE OLD WATER WORKS, located in Historic Bethlehem Park, Bethlehem

241. THE TANNERY, located in Historic Bethlehem Park, Bethlehem
242. CHAIN BRIDGE, southwest of Glendon on Hugh Moore Parkway across the Lehigh River, Easton vicinity

Northumberland County

243. WARRIOR RUN PRESBYTERIAN CHURCH, north of McEwensville on Pennsylvania 147
244. SODOM SCHOOLHOUSE, east of Montandon on Pennsylvania 45
245. NORTHUMBERLAND COUNTY COURTHOUSE, 207 Market Street, Sunbury

Philadelphia County

246. ARCH STREET MEETINGHOUSE, 302-338 Arch Street, Philadelphia
247. ARCH STREET PRESBYTERIAN CHURCH, 1726-1732 Arch Street, Philadelphia
248. THE ATHENAEUM OF PHILADELPHIA, 219 South Sixth Street, Philadelphia
249. BEGGARSTOWN SCHOOL, 6669 Germantown Avenue, Philadelphia
250. DANIEL BILLMEYER HOUSE, 6504 Germantown Avenue, Philadelphia
251. MICHAEL BILLMEYER HOUSE, 6505-6507 Germantown Avenue, Philadelphia
252. CATHEDRAL OF STS. PETER AND PAUL, 18th Street and the Parkway, Philadelphia
253. CENTENNIAL NATIONAL BANK, 3200 Market Street, Philadelphia
254. CHAMOUNIX, West Fairmount Park, overlooking Schuylkill Falls, Philadelphia
255. CHRIST CHURCH BURYING GROUND, Fifth and Arch Street, Philadelphia
256. CHURCH OF THE HOLY TRINITY, southwest corner of 19th and Walnut Streets, Philadelphia
257. CHURCH OF ST. JAMES THE LESS, Hunting Park Avenue at Clearfield Street, Philadelphia
258. CLARKSON—WATSON HOUSE, 5275-77 Germantown Avenue, Philadelphia
259. THE CLIFFS, East Fairmount Park near 33rd Street, Philadelphia
260. CLINTON STREET HISTORIC DISTRICT, four blocks facing on Clinton Street bounded by Ninth and 11th Streets, Pine and Spruce Streets, Philadelphia
261. CONYNGHAM—HACKER HOUSE, 5214 Germantown Avenue, Philadelphia
262. DESHLER—MORRIS HOUSE, 5442 Germantown Avenue, Philadelphia
263. DRINKER'S COURT, 236-238 Delancey Street, Philadelphia
264. FAIRMOUNT PARK, extends along both banks of the Schuylkill River and Wissahickon Creek, from the Art Museum at Spring Garden Street to Northwestern Avenue, Philadelphia
265. FIDELITY MUTUAL LIFE INSURANCE COMPANY BUILDING, Fairmount and Pennsylvania Avenues, Philadelphia
266. FIRST UNITARIAN CHURCH, 2121 Chestnut Street, Philadelphia
267. EDWIN FORREST HOUSE, 1326 North Broad Street, Philadelphia
268. FORT MIFFLIN HOSPITAL, Marina and Penrose Ferry Roads, Philadelphia
269. FRANKFORD ARSENAL, Tacony and Bridge Streets, Philadelphia
270. FREE QUAKER MEETINGHOUSE, southwest corner of Fifth and Arch Streets, Philadelphia
271. FURNESS LIBRARY, 34th Street below Walnut Street, Philadelphia
272. GIRARD COLLEGE COMPLEX, bounded by Poplar Street, Girard, West College, South College, and Ridge Avenues, Philadelphia
273. GLORIA DEI (OLD SWEDES') CHURCH NATIONAL HISTORIC SITE, Swanson Street, between Christian and Water Streets, Philadelphia
274. GRUMBLETHROPE, 5267 Germantown Avenue, Philadelphia
275. GRUMBLETHROPE TENANT HOUSE, 5269 Germantown Avenue, Philadelphia
276. HATFIELD HOUSE, Fairmount Park, 33rd Street near Girard Avenue, Philadelphia
277. HEAD HOUSE SQUARE, both sides of 400 block of South Second Street, Philadelphia
278. HILL—PHYSICK HOUSE, 321 South Fourth Street, Philadelphia
279. HOWEL HOUSE, 5218 Germantown Avenue, Philadelphia
280. INDEPENDENCE NATIONAL HISTORICAL PARK, bounded by Walnut, Sixth, Chestnut, and Second Streets, Philadelphia
281. NATHANIEL IRISH HOUSE, 704 South Front Street, Philadelphia
282. IVY LODGE, 29 East Penn Street, Philadelphia
283. JOHNSON HOUSE, 6306 Germantown Avenue, Philadelphia
284. KNOWLTON (RHAWN HOUSE), 8001 Verree Road, Philadelphia
285. KOSCIUSZKO HOUSE, 301 Pine Street, Philadelphia
286. MASONIC TEMPLE, 1 North Broad Street, Philadelphia

287. EBENEZER MAXWELL HOUSE, 200 West Tulpenhocken Street, Philadelphia
288. MENNONITE MEETINGHOUSE, 6119 Germantown Avenue, Philadelphia
289. METROPOLITAN OPERA HOUSE, 858 North Broad Street, Philadelphia
290. MIKVEH ISRAEL CEMETERY, northwest corner of Spruce and Darien Streets, Philadelphia
291. THE MONASTERY, Fairmount Park, Kitchen's Lane at Wissahickon Creek, Philadelphia
292. CLARENCE B. MOOR HOUSE, 1321 Locust Street, Philadelphia
293. ODD FELLOWS HALL, 800 North Third Street, Philadelphia
294. OLD CITY HISTORIC DISTRICT, includes parts of Washington Square East and Franklin Square East Development areas, Philadelphia
295. OLD GERMANTOWN ACADEMY AND HEADMASTERS' HOUSES, Greene Street and School House Lane, Philadelphia
296. PLAYS AND PLAYERS, 1714 Delancey Street, Philadelphia
297. PENNSYLVANIA ACADEMY OF THE FINE ARTS, southwest corner of Broad and Cherry Streets, Philadelphia
298. PHILADELPHIA COLLEGE OF ART (ASYLUM FOR THE DEAF AND DUMB), northwest corner of Broad and Pine Streets, Philadelphia
299. PHILADELPHIA CONTRIBUTIONSHIP, 212 South Fourth Street, Philadelphia
300. THE RANDOLPH HOUSE, East Fairmount Park, Philadelphia
301. READING TERMINAL, 1115-1141 Market Street, Philadelphia
302. ST. CLEMENT'S PROTESTANT EPISCOPAL CHURCH, southwest corner of 20th and Cherry Streets, Philadelphia
303. ST. GEORGE'S METHODIST CHURCH, 324 New Street, Philadelphia
304. 702 SOUTH FRONT STREET, Philadelphia
305. SOCIETY HILL HISTORIC DISTRICT, bounded on the north by Walnut Street (both sides), on the south by Lombard Street, on the east by the pier line of the Delaware River, and on the west by Eighth Street (both sides), Philadelphia
306. SOUTH FRONT STREET HISTORIC DISTRICT, west side of South Front Street (700 to 712) between Bainbridge and Kenilworth Streets, Philadelphia
307. SOUTHWALK DISTRICT, bounded by Delaware and Washington Avenues, Fifth, Lombard, Front, and Catherine Streets, Philadelphia
308. U. S. NAVAL HOME, Gray's Ferry Avenue and 24th Street, Philadelphia
309. UPSALA, 6430 Germantown Avenue, Philadelphia
310. JOHN WANAMAKER HOUSE, 2032 Walnut Street, Philadelphia
311. WIDOW MALOBY'S TAVERN, 700 South Front Street, Philadelphia
312. WOODLAND TERRACE, 501-519, 500-520 Woodland Terrace, Philadelphia
313. WYCK HOUSE, 6026 Germantown Avenue, Philadelphia

Sullivan County

314. HILLSGROVE COVERED BRIDGE, 3 miles east of Hillsgrove off Pennsylvania 87

Susquehanna County

315. ERIE RAILROAD STATION, Susquehanna

Union County

316. NEW BERLIN PRESBYTERIAN CHURCH (COMMUNITY CENTER), High and Vine Streets, New Berlin
317. OLD UNION COUNTY COURTHOUSE, corner of Market and Vine Streets, New Berlin

Venango County

318. SITE OF PITHOLE CITY, 10 miles southeast of Titusville, off Pennsylvania 227

Warren County

319. PENNSYLVANIA RAILROAD PASSENGER STATION, 316 Chestnut Street, Warren

Washington County

320. MALDEN INN, west of Blainsburg on U. S. 40
321. OLD MAIN, CALIFORNIA STATE COLLEGE, California State College Campus, California
322. HARRISON HOUSE, east of Centerville on Pennsylvania 481
323. MARGARET DERROW HOUSE, West Main Street, Claysville
324. MONTGOMERY HOUSE, West Main Street, Claysville
325. REGESTER LOG HOUSE, north of Fredericktown off Pennsylvania 88
326. HILL'S TAVERN (CENTURY INN), U. S. 40, Scenery Hill
327. DAVID BRADFORD HOUSE, 175 South Main Street, Washington
328. DR. JULIUS LE MOYNE HOUSE, 49 East Maiden Street, Washington

329. WASHINGTON COUNTY COURTHOUSE, South Main Street, Washington
330. WASHINGTON COUNTY JAIL, Cherry Street, Washington
331. JOSEPH DORSEY HOUSE, 113 Cherry Avenue, West Brownsville

Wayne County

332. WILMOT HOUSE, Wayne Street, Bethany
333. HILL'S SAWMILL, south of Equinunk off Pennsylvania 191

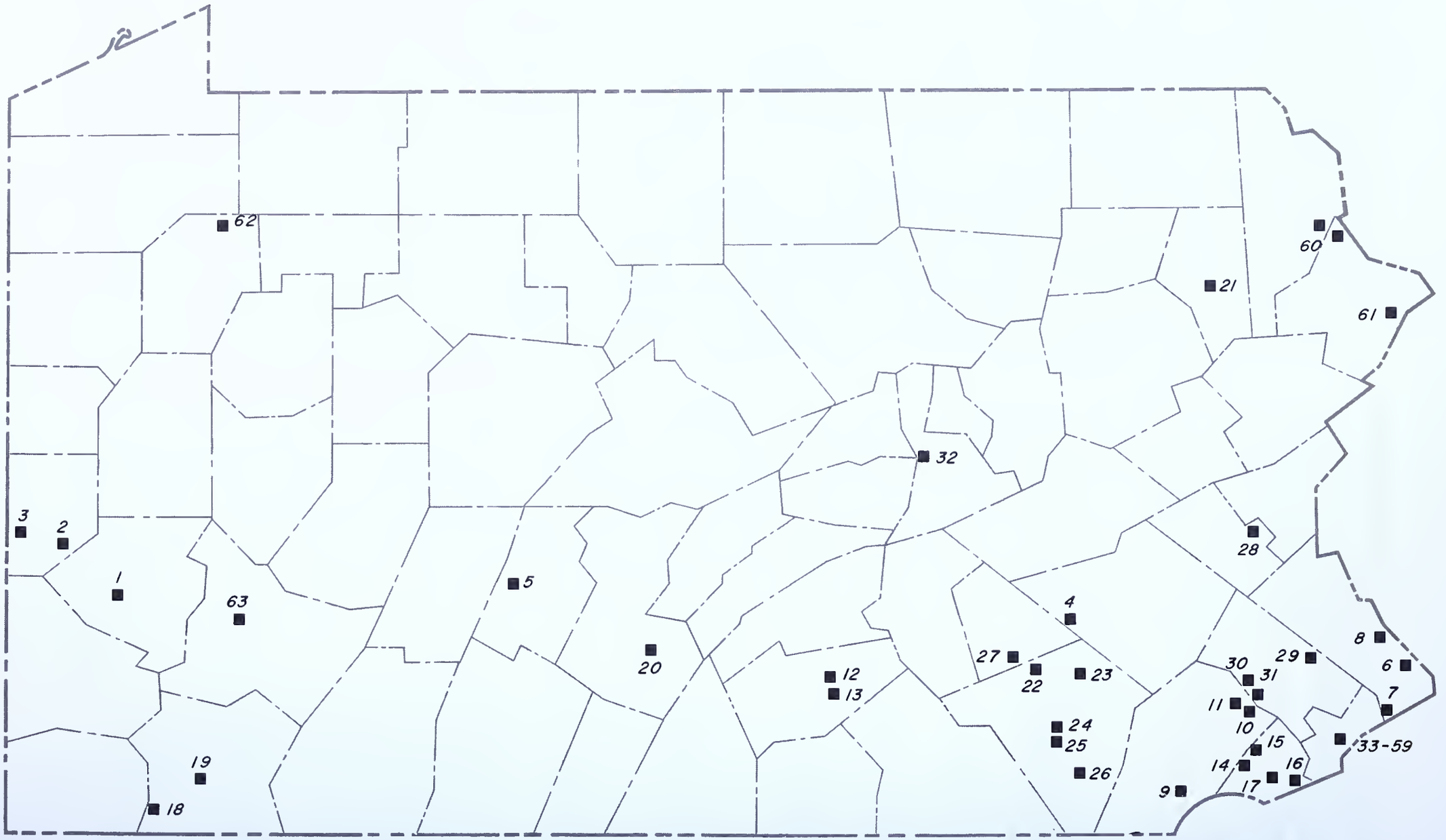
Westmoreland County

334. SITE OF OLD HANNASTOWN, 4 miles northeast of Greensburg off U. S. 119
335. WESTERN DIVISION—PENNSYLVANIA CANAL (CONEMAUGH RIVER LAKE), north of Torrance

York County

336. GEORGE NACE HOUSE, 113-115 West Chestnut Street, Hanover
337. BILLMEYER HOUSE, East Market Street, York
338. COOKES HOUSE, 438-440 Codorus Street, York
339. HORATIO GATES HOUSE AND GOLDEN PLOUGH TAVERN, 157-159 West Market Street, York

NATIONAL HISTORIC LANDMARKS



NATIONAL HISTORIC LANDMARKS

The National Landmarks Program is limited to National Register sites of nationwide significance. Upon the owner's agreement to adhere to accepted preservation precepts, landmark designation is recognized by the award of a bronze plaque and a certificate. This program began in 1960. Map 1 and Table 2 list the name and location of the National Historic Landmarks in Pennsylvania.

TABLE 2

NATIONAL HISTORIC LANDMARKS IN PENNSYLVANIA

Allegheny County

1. FORKS OF THE OHIO, POINT PARK, Pittsburgh

Beaver County

2. OLD ECONOMY, northwest of Pittsburgh on Pennsylvania 65, Ambridge
3. THE BEGINNING POINT OF THE U. S. PUBLIC LAND SURVEY, Glasgow vicinity

Berks County

4. CONRAD WEISER HOUSE, 2 miles east of Womelsdorf, U. S. 422

Blair County

5. HOUSESHOE CURVE, 5 miles west of Altoona on Pennsylvania 193

Bucks County

6. SUMMERSEAT (THOMAS BARCLAY HOUSE), Clymer Street and Morris Avenue, Morrisville
7. NICHOLAS BIDDLE ESTATE (ANDALUSIA), 1.4 miles north of Philadelphia on Pennsylvania 32
8. WASHINGTON CROSSING STATE PARK, between Yardley and New Hope, on the Delware River

Chester County

9. CEDARCROFT (BAYARD TAYLOR HOUSE), north of Kennett Square
10. VALLEY FORGE, Valley Forge State Park (also in Montgomery County), Norristown vicinity
11. GENERAL FREDERICK VON STEUBEN HEADQUARTERS, on Pennsylvania 23, Valley Forge

Cumberland County

12. CARLISLE INDIAN SCHOOL, east edge of Carlisle on U. S. 11
13. OLD WEST, DICKINSON COLLEGE, Dickinson College campus, Carlisle

Delaware County

14. BRANDYWINE BATTLEFIELD, Brandywine Battlefield Park, Chadds Ford
15. WILLIAM BRINTON HOUSE, 1704 HOUSE, Oakland Road near junction of U. S. 202 and County Route 15199, Dilworthtown vicinity
16. THE PRINTZHOF, Taylor Avenue and Second Street, Essington
17. BENJAMIN WEST BIRTHPLACE, Swarthmore College Campus, Swarthmore

Fayette County

18. ALBERT GALLATIN HOUSE, FRIENDSHIP HILL, 3 miles north of Point Marion on Pennsylvania 166.
19. SEARIGHTS TOLLHOUSE, NATIONAL ROAD, west of Uniontown near U. S. 40

Huntingdon County

20. EAST BROAD TOP RAILROAD, U. S. 522, Rockhill Furnace

Lackawanna County

21. TERENCE V. POWDERLY HOUSE, 614 North Main Street, Scranton

Lancaster County

22. STIEGEL—COLEMAN HOUSE, Pennsylvania 501 and U. S. 322, Brickerville
23. EPHRATA CLOISTER, Ephrata
24. JAMES BUCHANAN HOUSE WHEATLAND), 1120 Marietta Avenue, Lancaster
25. FULTON OPERA HOUSE, 12—14 North Prince Street, Lancaster
26. ROBERT FULTON BIRTHPLACE, 8 miles south of Quarryville on U. S. 22

Lebanon County

27. CORNWALL IRON FURNACE, 5 miles south of Lebanon on U. S. 322, Cornwall

Lehigh County

28. GEORGE TAYLOR HOUSE, Front Street, Catasauqua

Montgomery County

29. GRAEME PARK, Keith Valley Road, Horsham vicinity
30. AUGUSTUS LUTHERAN CHURCH, Seventh Avenue East and Main Street, Trappe
31. WASHINGTON'S HEADQUARTERS, Valley Creek Road near junction of Pennsylvania 252 and 23, Valley Forge

Northumberland County

32. JOSEPH PRIESTLEY HOUSE, Priestley Avenue, Northumberland

Philadelphia County

33. ACADEMY OF MUSIC, Broad and Locust Streets, Philadelphia
34. AMERICAN PHILOSOPHICAL SOCIETY HALL, Independence Square, Philadelphia
35. JOHN BARTRAM HOUSE, 54th Street and Eastwick Avenue, Philadelphia
36. CARPENTERS' HALL, 320 Chestnut Street, Philadelphia
37. CHEW HOUSE, Germantown Avenue between Johnson and Cliveden Streets, Philadelphia
38. CHRIST CHURCH, Second Street between Market and Filbert Streets, Philadelphia
39. WILLIAM COLEMAN HOUSE, (WOODFORD), East Fairmount Park, Philadelphia
40. COLONIAL GERMANTOWN HISTORIC DISTRICT, Germantown Avenue between Windrim Avenue and Upsal Street, Philadelphia
41. THOMAS EAKINS HOUSE, 1729 Mount Vernon Place, Philadelphia
42. EASTERN STATE PENITENTIARY, 21st Street and Fairmount Avenue, Philadelphia
43. ELFRETH'S ALLEY HISTORIC DISTRICT, between Second and Front Streets, Philadelphia
44. OLD FORT MIFFLIN, Marina and Penrose Ferry Roads, Philadelphia
45. FOUNDER'S HALL, GIRARD COLLEGE, Corinthian and Girard Avenues, Philadelphia
46. WILLIAM HAMILTON HOUSE, THE WOODLANDS, 40th Street and Woodland Avenue West, Philadelphia
47. INSTITUTE OF THE PENNSYLVANIA HOSPITAL, 111 North 49th Street, Philadelphia
48. JAMES LOGAN HOME, STENTON, 18th and Courtland Streets, Philadelphia
49. JOHN MacPHERSON HOUSE (MOUNT PLEASANT), Fairmount Park, Philadelphia
50. NEW MARKET, South Second Street between Pine and Lombard Streets, Philadelphia
51. U.S.S. OLYMPIA, Pier 40, at the foot of Chestnut Street, Philadelphia
52. CHARLES WILLSON PEALE HOUSE, (BELFIELD), 2100 Clarkson Avenue, Philadelphia
53. THE PENNSYLVANIA HOSPITAL, Eighth and Spruce Streets, Philadelphia
54. EDGAR ALLAN POE HOUSE, 530 North Seventh Street, Philadelphia
55. REYNOLDS-MORRIS HOUSE, 225 South Eighth Street, Philadelphia
56. THOMAS SULLY RESIDENCE, 530 Spruce Street, Philadelphia
57. WALNUT STREET THEATRE, Ninth and Walnut Streets, Philadelphia
58. MOTHER BETHEL A.M.E. CHURCH, 419 South Sixth Street, Philadelphia
59. MUSICAL FUND SOCIETY HALL, 808-810 Locust Street, Philadelphia

Pike County

60. DELAWARE AND HUDSON CANAL
61. GIFFORD PINCHOT HOUSE, GREY TOWERS, west edge of Milford

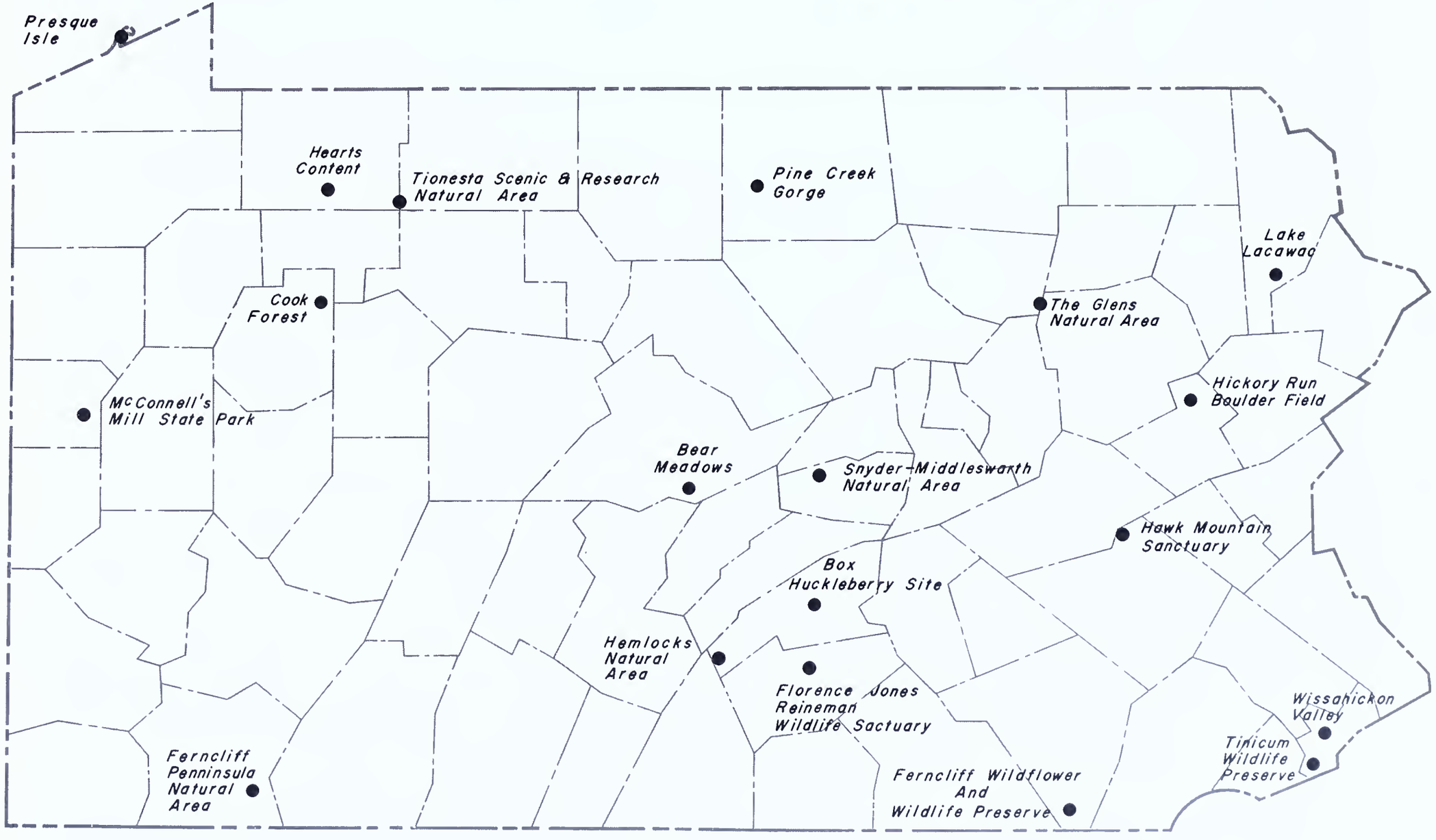
Venango County

62. DRAKE OIL WELL, 3 miles southeast of Titusville on Pennsylvania 36, Drake Well Memorial Park

Westmoreland County

63. BUSHY RUN BATTLEFIELD, 2 miles east of Harrison City on Pennsylvania 993

NATIONAL NATURAL LANDMARKS



NATIONAL REGISTRY OF NATURAL LANDMARKS

In accordance with the Historic Sites Act of 1935 the National Registry of Natural Landmarks lists the natural areas that are nationally significant. To be eligible, a site must possess exceptional value of quality in illustration or interpreting the natural heritage of the Nation, and must present a true, accurate, basically unspoiled example of natural history.

In order to provide a logical and scientific basis for the selection of natural landmarks the National Park Service has developed a system of natural history themes: Landforms of the Present, Geological History of the Earth, Land Ecosystems and Aquatic Ecosystems. Examples of the kinds of areas which could qualify as a natural landmark are:

> (1) Outstanding geological formations or features significantly illustrating geologic processes.
> (2) Significant fossil evidence of the development of life on earth.
> (3) An ecological community significantly illustrating characteristics of a physiographic province or a biome.
> (4) A biota of relative stability maintaining itself under prevailing natural conditions, such as a climatic climax community.
> (5) An ecological community significantly illustrating the process of succession and restoration to natural condition following disruptive change.
> (6) A habitat supporting a vanishing, rare, or restricted species.
> (7) A relic flora or fauna persisting from an earlier period.
> (8) A seasonal haven for concentrations of native animals, or a vantage point for observing concentrated populations, such as a constricted migration route
> (9) A site containing significant evidence illustrating important scientific discoveries.
> (10) Examples of the scenic grandeur of our natural heritage.*

Pennsylvania has 18 sites which have been designated National Natural Landmarks plus two scenic areas in the Allegheny National Forest which are eligible for inclusion in the Registry. Map 2 and Table 3 list the name and location of these landmarks in Pennsylvania.

*National Park Service, U. S. Department of the Interior, *National Registry of Natural Landmarks*, Volume 38, Number 171 (Washington, D.C. September 5, 1973), pp. 23982-23983.

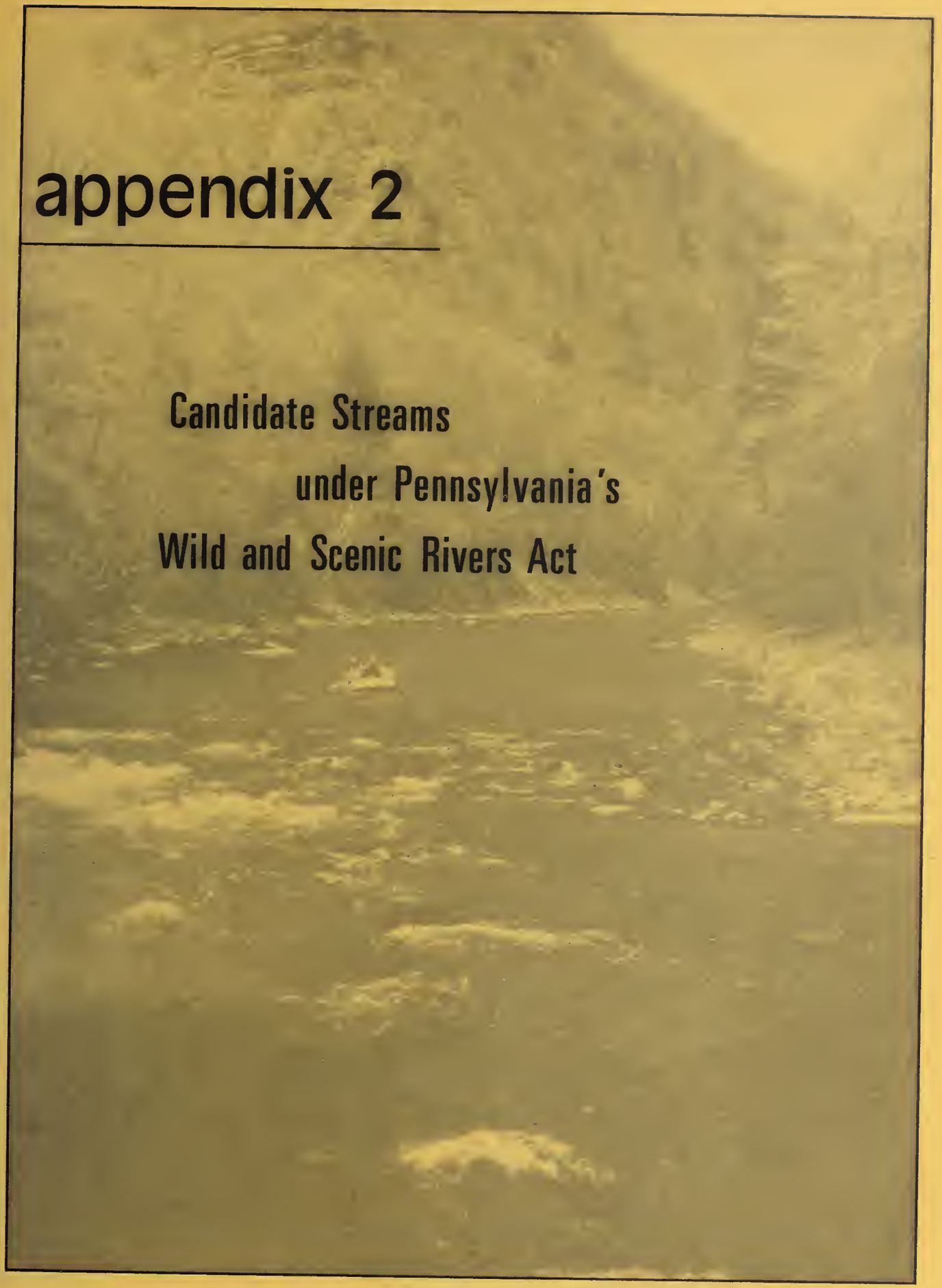
TABLE 3

NATIONAL REGISTRY OF NATURAL LANDMARKS IN PENNSYLVANIA

1. BEAR MEADOWS NATURAL AREA, Centre County—6 miles southeast of State College
2. BOX HUCKLEBERRY SITE, Perry County—1 mile south of New Bloomfield
3. COOK FOREST, Clarion County—Cook Forest State Park
4. FERNCLIFF PENINSULA NATURAL AREA, Fayette County—Ohiopyle State Park, 20 miles southeast of Connellsville
5. FERNCLIFF WILDFLOWER AND WILDLIFE PRESERVE, Lancaster County—3 miles west of Wakefield
6. FLORENCE JONES REINEMAN WILDLIFE SANCTUARY, Perry and Cumberland Counties, 8 miles northwest of Carlisle
7. HAWK MOUNTAIN SANCTUARY, Berks County—30 miles north of Reading
8. HEARTS CONTENT SCENIC AREA, Warren County—14 miles southwest of Warren (eligible but not registered)
9. HEMLOCKS NATURAL AREA, Perry County—12 miles south of Blain
10. HICKORY RUN BOULDER FIELD, Carbon County—in the Pocono Plateau region
11. LAKE LACAWAC, Wayne County—25 miles east of Scranton
12. McCONNELL'S MILL STATE PARK, Lawrence County—40 miles north of Pittsburgh
13. PINE CREEK GORGE, Tioga County—12-mile roadless stretch between Ansonia and Blackwell
14. PRESQUE ISLE, Erie County—near the city of Erie
15. SNYDER-MIDDLESWARTH NATURAL AREA, Snyder County—5 miles west of Troxelville
16. SUSQUEHANNA WATER GAPS, Perry County—18 miles north of Harrisburg
17. THE GLENS NATURAL AREA, Sullivan and Luzerne Counties—in Ricketts Glen State Park, 25 miles east of Williamsport
18. TINICUM WILDLIFE PRESERVE, Philadelphia County—Philadelphia
19. TIONESTA SCENIC AND RESEARCH NATURAL AREAS, Warren and McKean Counties—7 miles south of Ludlow (eligible but not registered)
20. WISSAHICKON VALLEY, Philadelphia County—Fairmount Park, Philadelphia

appendix 2

Candidate Streams under Pennsylvania's Wild and Scenic Rivers Act



Appendix 2

PENNSYLVANIA'S SCENIC RIVERS ACT AND PLANNING PROCESS

Introduction

Many of the rivers of Pennsylvania and adjacent land areas possess outstanding aesthetic and recreational values. It is the intention of the Commonwealth to protect these values and to ensure that sound conservation practices are observed. The "Pennsylvania Scenic Rivers Act" authorizes the establishment of a scenic river system and specifies procedures for designating certain river segments for inclusion in this program and provides for the protection and administration of these segments for the benefit of present and future generations—Act 283, Dec. 6, 1972.

Eligibility Requirements

In order to implement the scenic rivers legislation, a combination of both eligibility and classification requirements have been developed *(Eligibility Guidelines for the Pennsylvania Scenic Rivers System,* Pennsylvania Department of Environmental Resources, July 1974). These guidelines specify that both the river and its adjacent environs must be considered as a unit and emphasize the beauty of the environment and its recreational potential.

Specifically, a river and its environs must possess one or more of the following values:

Outstandingly remarkable *wild features* having minimal perceptible human influence.

Scenic example of the grandeur of a river's heritage.

Recreational value particularly suitable for the widest range of outdoor recreation or superlative for specific activities.

Geological features significantly illustrating geologic processes.

For the quality of its *fishery, wildlife and/or vegetative cover* by reason of the existing resource value or its potential.

Historical value from events, eras or structures associated with the river and/or its environs.

Cultural value by reason of a river's influence on local-regional-State traditions.

Scientific value by containing evidence illustrative of important scientific principals, properties or discoveries.

Additional eligibility criteria have been developed related to water quality, water volume, and length of river segments. A river with poor water quality (below state standards) should be capable of improvement to acceptable state standards for consideration in the system. A river should have sufficient water volume during normal years to permit, during the recreation season, full enjoyment of water-related outdoor recreational activities. A river or river segment must be long enough to provide an enjoyable aesthetic or recreational experience. Generally, in urban areas, any segment included in the system should be at least five miles long. In outer urban areas, a segment should be at least fifteen miles long. Rural areas should include river segments at least twenty-five miles in length. In any area, a shorter stretch possessing unique qualifications or values may be considered for inclusion in the system.

Classification

Rivers eligible for inclusion in the scenic rivers system will be classified, designated and administered as Wild, Scenic, Recreational and Modified Recreational rivers. Although a designated river unit may have more than one classification, each segment must be long enough to provide a meaningful experience and the number of different classified segments within a unit should be kept to a minimum.

1. Wild & Scenic Classifications

Commonwealth policy, as implied in scenic rivers legislation, is to protect and enhance those river segments representative of Pennsylvania's natural and cultural river heritage for the dual purposes of environmental protection, and the general recreational enjoyment and educational benefit of the public. Designation as a Wild or Scenic River is intended to preserve the aesthetic sensations and illusions of wildness or pastoralness, and to preserve the existing character and quality of both the river and its adjacent land environment. Varying degrees of protection and management will be necessary to maintain relatively free flowing, good quality waters, wild and pastoral shorelines, and indigenous flora and fauna. Protection of Wild and Scenic Rivers should stimulate public awareness and appreciation of Pennsylvania's river heritage.

2. Recreation & Modified Recreation Classifications

Designation as a Recreational or Modified Recreational River is intended to stimulate the utilization of the river and its adjacent land environment for more intensive recreational uses. Such use, however, must be compatible with the capability of the resource to support intensive use without degradation. These segments may reflect increased evidence of the man-made environment and modification of the natural environment.

Implementation

The Department of Environmental Resources (DER) is responsible for the administration and implementation of the Pennsylvania Scenic Rivers Act. The Wild and Scenic Rivers Task Force was appointed by the Department's Secretary to advise and assist DER staff in the completion of a scenic rivers inventory, in the establishment of implementation priorities, and in the implementation of a State Scenic Rivers System.

Implementation of the Scenic Rivers Act includes two separate but interrelated phases as established in the Implementation Guidelines. The first phase involved the inventory and screening of Pennsylvania waterways to identify streams and rivers for inclusion in the Scenic Rivers System. The Scenic Rivers Act specifies that to qualify streams must possess one or more outstandingly remarkable natural, ecological, scientific, aesthetic, cultural, historical, or recreational values. Preliminary qualification screening has been completed through the combined efforts of the DER scenic rivers staff, the Wild and Scenic Rivers Task Force, and Pennsylvania's ten uniform regional planning agencies and is considered to be one of the important elements in Pennsylvania's Recreation Planning Process and Plan. This work was done using guidelines drafted by DER staff and the Wild and Scenic Rivers Task Force and approved by the Secretary and the Environmental Quality Board. *(Pennsylvania Scenic Rivers Act: Guidelines for Implementation,* July 1974).

The second phase of the scenic rivers program involves a detailed inventory and evaluation of a select number of streams in order to verify whether or not they possess the values necessary for inclusion in the scenic rivers system. Secondly, the development of specific resources management and environmental protection plans for those streams which are eligible needs to be formulated. The protection of scenic river qualities requires widespread communication, understanding, and cooperation among all levels of government as well as the private sector. The extent of protection afforded designated streams will be dependent largely upon the ability of local government and county and regional planning agencies to develop and implement flexible and effective environmental management and protection policies, plans, and programs. It is the intention of DER to work cooperatively with local governments and planning agencies in the development of implementation strategies that are consistent with the planning policies of individual regions.

Pennsylvania Scenic Rivers Inventory

During Phase I regional planning agencies were requested to inventory all streams within their boundaries for possible inclusion in the Scenic Rivers System and to contact and solicit nominations from local governments, public agencies, private organizations and individuals within their regions. These regional nominations have been analyzed and evaluated by the Scenic Rivers Task Force and rated according to a number of factors related to the inherent qualities of the natural resource, the extent and character of man-made development, and the recreational potential of each stream.

For purposes of categorizing streams into like groups, a simple priority system was established. First priority streams exhibit a number of the previously mentioned values and are considered to be of statewide and, in some instances, even national significance. Second and third priority waterways exhibit some outstanding values, yet not enough in quantity or quality to merit statewide recognition. These waterways are considered to be of primary importance and concern at the local and regional level. However, a lower priority ranking should not be equated with a de-emphasized need for protection. All State agencies involved in physical planning projects will, by record of this inventory, be alerted to the overall quality of all scenic river nominations. Such recognition will assist local and regional efforts to develop environmental awareness and appreciation and to attain increased public enjoyment and protection of these streams. Most importantly, it will assure that government planning processes include consideration of these values in the future. Based primarily upon the degree of consideration of environmental quality, resource endangerment and recreational potential, first priority streams have been further divided into three subgroups (A, B, & C). First priority "A" group streams are those which have the most immediate need for protection and additional study. First priority "B" and "C" groups are of less than immediate concern. The decision as to which of those "A" group streams will be studied and when they will be studied will be determined by the Secretary of the Department of Environmental Resources. Final designation and inclusion of a candidate stream within the Pennsylvania Scenic Rivers System requires the completion of a detailed study report and public hearings held in the counties in which streams are located. The study report and public hearing results transcript are forwarded to the General Assembly and the Governor for official action.

Every effort has been directed at completing a comprehensive and accurate inventory of Pennsylvania's scenic rivers. This inventory is an essential aspect of the ongoing and continuing Scenic Rivers Program. Many waterways of significant value will benefit from further documentation. Others will improve in quality as a result of tangential governmental and private efforts. It

follows that the priority order established in this first inventory will change over time.

In order to allow for new scenic rivers nominations and to give county and regional agencies, local governments, private organizations, and citizens the opportunity to re-evaluate existing priorities, an annual review process has been established. The purpose of this review is to encourage continued local input in the process of identifying and inventorying scenic rivers.

The following tables identify the proposed scenic river nominations, classification, approximate length, segment limits, and the county and planning region in which they are located.

PRIORITY 1 "A" SUSQUEHANNA RIVER BASIN

Stream Name	Proposed Class	Length (Miles)	Segment Limits	Planning Region	County
Beech Creek	Scenic	20	Kato to Beech Creek, PA.	5	Centre, Clinton
Black Moshannon Creek	Scenic	17	Black Moshannon Dam to Moshannon Creek	5	Centre
Driftwood Branch Sinnemahoning Creek	Scenic	20	Emporium to Driftwood	8	Cameron
East Branch Octoraro Creek	Recreational	21	Headwaters to Octoraro Creek	6	Chester
Hammersley Fork	Scenic	10	Headwaters to Kettle Creek	8, 5	Clinton, Potter
Juniata River	Recreational	34	Mount Union to Lewistown	7, 5	Huntingdon, Mifflin
Laurel Run	Scenic	20	Headwaters to Sherman Creek	6	Perry
Lick Run	Wild	17	Headwaters to West Branch Susquehanna River	5	Clinton
Little Juniata	Recreational	5	Spruce Creek, PA. to Juniata River	7	Blair
Loyalsock Creek	Scenic	52	Headwaters to Loyalsockville	4, 5	Lycoming, Sullivan
Moshannon Creek	Scenic	27	Phillipsburg to West Branch Susquehanna River	5	Centre, Clearfield
Mosquito Creek	Wild	18	Headwaters to West Branch Susquehanna River	8	Cameron, Clearfield
Muddy Creek	Recreational	16	Junction of Forks to Susquehanna River	6	York
Octoraro Creek	Recreational	13	Junction of Branches to Maryland Border	1, 6	Chester, Lancaster
Penn Creek	Recreational, Wild	46	Penn's Cave to Selinsgrove	5	Centre, Mifflin, Snyder, Union
Pine Creek	Scenic	51	Ansonia to Jersey Shore	4, 5	Lycoming, Tioga
Schrader Creek	Wild	24	Headwaters to Towanda Creek	4	Bradford, Sullivan
Sinnemahoning Creek	Scenic	12	Driftwood to Keating	8, 5	Cameron, Clinton
Spruce Creek	Scenic	10	Headwaters to Little Juniata River	7	Huntingdon
Stewart Run	Recreational	3	Headwaters to West Branch Octoraro Creek	6	Lancaster
Stony Creek	Wild	14	Dresden Lake to West Boundary Game Lands	6	Dauphin, Lebanon
Susquehanna River	Recreational	90	Sayre, PA. to Lackawanna River	4, 3	Bradford, Lackawanna, Luzerne, Wyoming
Susquehanna River	Recreational	39	West Branch Susquehanna to Juniata River	5, 6	Dauphin, Juniata, Northumberland, Perry, Snyder
Tuscarora Creek	Scenic	36	Headwaters to Juniata River	5	Huntingdon, Juniata
West Branch Octoraro Creek	Recreational	13	Headwaters to Octoraro Creek	6	Lancaster
West Branch Susquehanna River	Scenic	86	Clearfield to Lock Haven	8, 5	Centre, Clearfield, Clinton

PRIORITY 1 "B" SUSQUEHANNA RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Cross Fork	Scenic	14	Headwaters to Kettle Creek	8	Potter
Fishing Creek	Scenic	38	Headwaters to Bald Eagle Creek	5	Clinton
Juniata River	Recreational	18	Warrior Ridge to Mount Union	7	Bedford, Huntingdon, Somerset
Juniata River	Recreational, Scenic	45	Lewistown to Susquehanna River	5, 6	Juniata, Mifflin, Perry
Kettle Creek	Scenic	19	Headwaters to Two-Mile Creek	8, 5	Clinton Potter
Left Branch Young Womans Creek	Scenic	9	Headwaters to Young Womans Creek	5, 6	Clinton, Cumberland
Letort Spring Run	Recreational	5	Headwaters to Conodoquinet Creek	6	Cumberland
Mountain Creek	Recreational	11	Headwaters to Mount Holly Springs	6	Cumberland
Sherman Creek	Recreational	51	Headwaters to Susquehanna River	6	Perry
Sinking Run	Scenic	7	Headwaters to Little Juniata River	7	Blair, Huntingdon
South Branch Bennett Branch	Wild	3	Headwaters to Bennett Branch	8	Clearfield
Susquehanna River	Scenic, Recreational	52	Lackawanna River to Sunbury	3, 5	Columbia, Luzerne, Montour, Northumberland
West Branch Susquehanna River	Modified Recreational Scenic, Recreational	69	Lock Haven to Susquehanna River	5	Clinton, Lycoming, Northumberland, Union
Yellow Breeches	Recreational	54	Headwaters to Susquehanna River	6	Cumberland, York
Young Womans Creek	Scenic	17	Headwaters to West Branch Susquehanna River	8, 5	Clinton, Potter

PRIORITY 1 "C" SUSQUEHANNA RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Conestoga River	Modified Recreational	30	Cocalico Creek to Susquehanna River	6	Lancaster
Detweiler Run	Wild	6	Headwaters to Standing Stone Run	7, 5	Centre, Huntingdon
Frankstown Branch Juniata River	Recreational	28	Hollidaysburg to Juniata River	7	Bedford, Blair, Huntingdon
Great Trough Creek	Scenic	8	Todd to Raystown Branch Juniata River	7	Huntingdon
Kettle Creek	Scenic	2	Two-Mile Run to West Branch	5	Clinton
Little Juniata River	Recreational	8	Tyrone to Spruce Creek, PA.	7	Blair, Huntingdon
Mehoopany Creek	Scenic	21	Headwaters to Susquehanna River	4	Sullivan, Wyoming
Meshoppen Creek	Scenic	22	Headwaters to Susquehanna River	4	Susquehanna, Wyoming
Muncy Creek	Scenic	12	Headwaters to Sonestown	4	Sullivan
Standing Stone Creek	Scenic	29	Headwaters to Juniata River	7	Huntingdon
Susquehanna River	Recreational	26	Juniata River to Three-Mile Island	6	Cumberland, Dauphin

PRIORITY 2 SUSQUEHANNA RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Babb Creek	Scenic	18	Headwaters to Custard Run	4	Tioga
Bowman Creek	Scenic	15	Headwaters to Beaver Run	4	Luzerne, Wyoming
Chest Creek	Scenic, Recreational	18	Headwaters to Cambria/Clearfield County Line	7	Cambria
Conewago Creek	Scenic	6	The Narrows only	6	Adams
East Branch Hicks Run	Scenic	7	Headwaters to Hicks Run	8	Cameron, Elk
Fishing Creek	Recreational	30	Headwaters to Susquehanna River	5	Columbia
Hicks Run	Scenic	2	Junction of Branches to Bennett Branch	8	Cameron, Elk
Hoagland Branch Elk Creek	Scenic	10	Headwaters to Elk Creek	4	Sullivan
Martins Creek	Scenic	18	Headwaters to Tunkhannock Creek	4	Susquehanna, Wyoming
Middle Creek	Recreational	28	Headwaters to Penn Creek	5	Snyder
Spring Creek	Recreational	24	Headwaters to Bald Eagle Creek	5	Centre
Tunkhannock Creek	Scenic	17	Headwaters to East Branch Tunkhannock Creek	4	Susquehanna
Wapwallopen Creek	Wild	11	Near Interstate 81 to Susquehanna River	3	Luzerne
West Branch Pine Creek	Recreational	14	Headwaters to Pine Creek	8	Potter, Tioga
West Branch Hicks Run	Scenic	8	Headwaters to East Branch Hicks Run	8	Cameron, Elk
West Creek	Recreational	19	Headwaters to Driftwood Branch	8	Cameron, Elk

PRIORITY 3 SUSQUEHANNA RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segments Limits	Planning Region	County
Bald Eagle Creek	Recreational	54	Headwaters to West Branch Susquehanna River	5	Centre, Clinton
Chillisquaque Creek	Scenic	14	Mud Creek to West Branch Susquehanna River	5	Montour, Northumberland
Deep Creek	Scenic	13	Headwaters to Pine Creek	3, 6	Dauphin, Schuylkill
Fishing Creek	Scenic	11	Headwaters to Susquehanna River	6	Lancaster
Hammer Creek	Modified Recreational	13	Lebanon/Lancaster County Line to Cocalico Creek	6	Lancaster,
Harvey Creek	Scenic	13	Harvey's Lake to Susquehanna River	3	Luzerne
Hockenberry Run	Wild	5	Headwaters to North Witmer Run	8	Clearfield
Honey Creek	Scenic	17	Headwaters to Kishacoquillas Creek	5	Mifflin, Snyder
Kishacoquillas Creek	Scenic	15	Headwaters to Reedsville	5	Mifflin
Lackawanna River	Modified Recreational	32	Stillwater Reservoir to Susquehanna River	3	Lackawanna, Susquehanna, Wayne
Lick Run	Wild	10	Headwaters to Fork Run	8	Clearfield
Little Clearfield Creek	Recreational	18	Kerrmoor to Clearfield Creek	8	Clearfield
Little Pine Creek	Scenic	13	Texas Creek to Pine Creek	5	Lycoming
Lower Little Swatara Creek	Scenic	8	Headwaters to Swatara Creek	3	Schuylkill
Lycoming Creek	Recreational	30	Headwaters to West Branch Susquehanna River	5, 4	Lycoming, Tioga
Mahanoy Creek	Scenic	52	Schuylkill/Northumberland County Line to Susquehanna River	5	Northumberland
Mahantango Creek	Scenic	17	Headwaters to Susquehanna River	3, 5, 6	Dauphin, Northumberland, Schuylkill
Medix Run	Recreational	22	Headwaters to Bennett Branch Sinnemahoning Creek	8	Clearfield, Elk

PRIORITY 3 SUSQUEHANNA RIVER BASIN (continued)

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Middle Creek	Scenic	14	Headwaters to Cocalico Creek	6	Lancaster
Nescopeck Creek	Scenic	29	Headwaters to Susquehanna River	3	Luzerne
North Branch Mahantango Creek	Scenic	12	Headwaters to West Branch Mahantango Creek	5	Snyder
North Witmer Run	Recreational	6	Berwinsdale to Clearfield Creek	8	Cambria, Clearfield,
Pequea Creek	Recreational	18	Wheatland Mills to Susquehanna River	6	Lancaster
Roaring Creek	Recreational	18	Headwaters to Susquehanna River	5	Columbia, Montour
Segloch Run	Scenic	5	Headwaters to Furnace Run	6	Lancaster, Lebanon
South Witmer Run	Wild	8	Headwaters to North Witmer Run	7, 8	Clearfield, Cambria
Stone Run	Wild	6	Headwaters to Lick Run	8	Clearfield
Straight Run	Scenic	4	Headwaters to Marsh Creek	4	Tioga
Swatara Creek	Recreational	27	Lebanon County only	6	Lebanon
Trout Run	Wild	27	Headwaters to West Branch Susquehanna River	8	Clearfield
Trout Run	Scenic	24	Headwaters to Bennett Branch Sinnemahoning Creek	8	Elk
Upper Little Swatara Creek	Recreational	6	Headwaters to Swatara Creek	3	Schuylkill
Upper Three Runs	Wild	8	Headwaters to Pottersdale	8	Clearfield
Wyalusing Creek	Recreational	19	North Branch Wyalusing Creek to Camptown	4	Bradford, Susquehanna

PRIORITY 1 "A" OHIO RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Allegheny River	Scenic, Recreational Modified Recreational	102	Kinzua Dam to Clarion River	9	Clarion, Forest, Venango, Warren
Allegheny River	Scenic	14	Clarion River to East Brady	9, 10	Armstrong, Clarion
Brokenstraw Creek	Scenic	30	New York Border to Allegheny River	9	Erie, Warren
Casselman River	Scenic	27	Garrett to Youghiogheny River	7	Somerset
Clarion River	Scenic	87	Ridgeway to Allegheny River	8, 9	Clarion, Elk, Forest Jefferson
Connoquenessing Creek	Recreational	5	Frisco to Beaver River	9, 10	Butler, Beaver, Lawrence
Cucumber Run	Scenic	4	Headwaters to Youghiogheny River	10	Fayette
Cussewago Creek	Recreational	28	Headwaters to French Creek	9	Crawford
Dunbar Creek	Wild	12	Headwaters to Dunbar, PA.	10	Fayette
East Branch Tionesta Creek	Scenic	10	Headwaters to South Branch Tionesta Creek	8, 9	McKean, Warren
French Creek	Modified Recreational	78	Headwaters to Allegheny River	9	Crawford, Mercer, Venango, Erie
Indian Creek	Recreational	3	Mill Run Reservoir to Youghiogheny River	10	Fayette
Jonathan Run	Wild	5	Headwaters to Youghiogheny River	10	Fayette
Kinzua Creek	Scenic	34	Headwaters to Allegheny Reservoir	8, 9	McKean, Warren
Lake Creek	Recreational	16	Headwaters to Sugar Creek	9	Venango, Crawford
Laurel Hill Creek	Scenic	31	Headwaters to Casselman River	7	Somerset
Meadow Run	Recreational	10	Headwaters to Youghiogheny River	10	Fayette
Muddy Creek	Scenic	18	Headwaters to French Creek	9	Crawford
North Fork Red Bank Creek	Wild, Scenic	21	Headwaters to Red Bank Creek	8	Jefferson
Slippery Rock Creek	Modified Recreational, Scenic	47	Headwaters to Connoquenessing Creek	10, 9	Butler, Lawrence
South Branch French Creek	Modified Recreational	18	Headwaters to French Creek	9	York

PRIORITY 1 "A" OHIO RIVER BASIN (continued)

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Squaw Run	Scenic	5	Headwaters to Allegheny River	10	Allegheny
Sugar Creek	Modified Recreational	8	Junction of Branches to French Creek	9	Venango
Tionesta Creek	Scenic	52	Headwaters to Tionesta Creek Lake	9	Forrest, McKean, Warren
West Branch French Creek	Modified Recreational	15	Headwaters to French Creek	9	Erie
Wolf Creek	Scenic	24	Headwaters to Slippery Rock Creek	9, 10	Butler, Mercer
Youghiogheny River	Scenic	29	Confluence, PA. to South Connellsville	10	Fayette, Somerset, Westmoreland

PRIORITY 1 "B" OHIO RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Bear Creek	Scenic	12	Headwaters to Clarion River	8	Elk
Buffalo Creek	Scenic	16	Worthington to Allegheny River	10	Armstrong, Butler
Buffalo Creek	Scenic	13	Acheson to West Virginia Border	10	Washington
Dunkard Fork Wheeling Creek	Scenic	5	Ryerson Station to West Virginia Border	10	Greene
Dutch Fork	Scenic	5	Headwaters to Buffalo Creek	10	Washington
Enlow Fork Wheeling Creek	Scenic	15	Headwaters to West Virginia Border	10	Greene
Oil Creek	Scenic	12	Titusville to Rouseville	9	Crawford, Venango
Youghiogheny River	Scenic	25	South Connellsville to West Newton	10	Fayette, Westmoreland

PRIORITY 1 "C" OHIO RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Allegheny River	Recreational	23	Port Allegheny to New York Border	8	McKean
Allegheny River	Scenic, Modified Recreational	53	East Brady to Kiskiminetas River	9, 10	Allegheny, Armstrong Clarion
Allegheny River	Modified Recreational	30	Kiskiminetas River to Pittsburgh	10	Armstrong, Allegheny
Aunt Clara Fork Kings Creek	Scenic	12	Headwaters to Kings Creek	10	Washington
Connoquenessing Creek	Recreational	59	Headwaters to Slippery Rock Creek	9, 10	Beaver, Butler, Lawrence
North Fork Little Beaver Creek	Recreational	12	Beaver-Lawrence County Line to Ohio Border	9, 10	Beaver, Lawrence
Youghiogheny River	Recreational	13	West Newton to Versalilles	10	Allegheny, Westmoreland

PRIORITY 2 OHIO RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Clear Shade Creek	Scenic	10	Headwaters to Shade Creek	7	Somerset
East Sandy Creek	Recreational	23	Headwaters to Allegheny River	9	Clarion, Venango
Hickory Run	Scenic	5	Bessemer to Mahoning River	9	Lawrence
Little Scrubgrass Creek	Scenic	8	Headwaters to Allegheny River	9	Butler, Venango
Little Sewickley Creek	Scenic	13	Headwaters to Ohio River	10	Allegheny
Loyalhanna Creek	Modified Recreational	49	Ligonier to Connemaugh River	10	Westmoreland
Mill Run	Wild	6	Headwaters to Quebec Run	10	Fayette
Neshannock Creek	Scenic	15	Volant to Shenango River	9	Lawrence
Pithole Creek	Scenic	16	Headwaters to Allegheny River	9	Forest, Venango
Potato Creek	Scenic	16	Headwaters to Smethport	8	McKean
Quebec Run	Wild	8	Headwaters to West Virginia Border	10	Fayette
Redbank Creek	Scenic	23	South Bethlehem to Allegheny River	9	Armstrong, Clarion
Shade Creek	Scenic	7	Clear Shade Creek to Stony Run	7	Somerset
Sandy Creek	Recreational	17	Sandy Creek to Allegheny River	9	Mercer, Venango
Tenmile Creek	Recreational	9	Daniel Run to Monongahela River	10	Greene, Washington

PRIORITY 3 OHIO RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Allegheny Portage Creek	Recreational	13	Headwaters to Allegheny River	8	McKean, Potter
Blacklick Creek	Recreational, Scenic	7	Cambria/Indiana County Line to Conemaugh River	10	Indiana
Brush Creek	Modified Recreational	12	Brush Run to Turtle Creek	10	Westmoreland
Conemaugh River	Recreational	47	Cambria/Westmoreland County Line to Kiskiminetas River	10	Indiana, Westmoreland
Conewango Creek	Recreational	13	New York Border to Allegheny River	9	Warren
Crouse Run	Scenic	4	Headwaters to Pine Creek	10	Allegheny
Jacobs Creek	Scenic	25	Headwaters to Youghiogheny River	10	Fayette, Westmoreland
Mahoning Creek	Recreational	29	Mahoning Creek Lake to Allegheny River	10	Armstrong
Monongahela River	Modified Recreational	91	Point Marion to Pittsburgh	10	Allegheny, Fayette, Greene, Washington Westmoreland
Ohio River	Modified Recreational	36	Pittsburgh to Ohio/West Virginia Border	10	Allegheny, Beaver
Raccoon Creek	Recreational	27	Burgetts Fork to Ohio River	10	Beaver, Washington
Stony Creek	Scenic	27	Headwaters to Paint Creek	7	Somerset
Sugar Run	Scenic	7	Headwaters to Allegheny Reservoir	8	McKean, Warren

PRIORITY 1 "A" DELAWARE RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Brandywine Creek	Recreational	10	Junction of Branches to Delaware River	1	Chester, Delaware
Bush Kill (Big Bush Kill)	Scenic	22	Headwaters to Delaware River	3	Monroe, Pike
Delaware River	Scenic	54	Hancock, N.Y. to Lackawanna River	3	Wayne Pike
Delaware River	Recreational, Scenic	85	Lackawaxen River to Lehigh River	3, 2	Pike, Monroe, Northampton
Delaware River	Recreational	42	Lehigh River to Yardley, PA.	1	Northampton, Bucks
East Branch Brandywine Creek	Recreational	25	Headwaters to Brandywine Creek	1	Chester
Glen Onoko Falls	Wild	2	Headwaters to Lehigh River	3	Carbon
Jeans Run	Wild	3	Headwaters to Nesquehoning Creek	3	Carbon
Lehigh River	Scenic	25	Francis E. Walter Dam to Jim Thorpe	3	Carbon, Luzerne
Mud Run	Wild	11	Headwaters to Lehigh River	3	Monroe, Carbon
Schuylkill River	Modified Recreational	66	Reading to Fairmount Dam (Philadelphia)	2, 1	Berks, Chester, Montgomery, Philadelph
West Branch Brandywine Creek	Recreational	31	Headwaters to Brandywine Creek	1	Chester

PRIORITY 1 "B" DELAWARE RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
French Creek	Recreational	18	Hopewell Lake to Phoenixville	1, 2	Chester, Berks
South Branch French Creek	Recreational	7	Elverson to French Creek	1	Chester
Tohicken Creek	Scenic	11	Nockamixon Reservoir to Delaware River	1	Bucks

PRIORITY 1 "C" DELAWARE RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Bushkill Creek	Recreational	17	Headwaters to Delaware River	2	Northampton
Cooks Creek	Recreational	11	Pleasant Valley to Delaware River	1	Bucks
Jordan Creek	Recreational	32	Headwaters to Lehigh River	2	Lehigh
Lehigh River	Modified Recreational	42	Jim Thorpe to Delaware River	3, 2	Carbon, Lehigh Northampton
Maiden Creek	Recreational	26	Pine Creek to Schuylkill River	2	Berks
Perkiomen Creek	Recreational	18	Green Lane Reservoir to Schuylkill River	1	Montgomery
Wissahickon Creek	Scenic	25	Montgomeryville to Schuylkill River	1	Montgomery, Philadelphia

PRIORITY 2 DELAWARE RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Big Brook	Scenic	6	Headwaters to Jadwin Reservoir	3	Wayne
Blooming Grove Creek	Scenic	12	Headwaters to Lackawaxen River	3	Pike
Brodhead Creek	Scenic	29	Headwaters to Pocono Creek	3	Monroe
Crum Creek	Modified Recreational	6	Springton Reservoir to Crum Lynne	1	Delaware
Dyberry Creek	Scenic	3	Jadwin Reservoir to Lackawaxen River	3	Wayne
East Branch Dyberry Creek	Scenic	6	Headwaters to Jadwin Reservoir	3	Wayne
East Branch Monocacy Creek	Recreational	4	Headwaters to Monocacy Creek	2	Northampton
Lackawaxen River	Scenic	21	Honesdale to Delaware River	3	Pike, Wayne
Little Lehigh Creek	Recreational	24	Headwaters to Lehigh River	2	Berks, Lehigh
Little Schuylkill River	Recreational	27	Headwaters to Schuylkill River	3	Schuylkill
Locust Creek	Recreational	8	Headwaters to Little Schuylkill River	3	Schuylkill
Manatawny Creek	Recreational	18	Oley to Berks/Montgomery County Line	2	Berks
Middle Creek	Scenic	12	Varden to Lackawaxen River	3	Wayne
Mononacy Creek	Recreational	17	Headwaters to Lehigh River	2	Lehigh, Northampton
Pickering Creek	Scenic, Recreational	9	Headwaters to Pickering Reservoir	1	Chester
Ridley Creek	Recreational	13	Ridley Creek State Park to Tyler Arboretum	1	Delaware
Sacony Creek	Recreational	4	Kutztown to Maiden Creek	2	Berks
Tulpehocken Creek	Modified Recreational	24	Lebanon/Berks County Line to Schuylkill River	2	Berks
Unami Creek	Scenic	10	Milford Square to Perkoimen Creek	1	Bucks, Montgomery
West Branch Dyberry Creek	Scenic	9	Headwaters to Jadwin Reservoir	3	Wayne
West Branch Lackawaxen River	Scenic, Recreational	21	Headwaters to Lackawaxen River	3	Wayne

PRIORITY 3 DELAWARE RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Angelica Creek	Recreational	5	Headwaters to Schuylkill River	2	Berks
Antietam Creek	Modified Recreational	6	Antietam Reservoir to Schuylkill River	2	Berks
Cacoosing Creek	Recreational	5	Sinking Spring to Schuylkill River	2	Berks
Chester Creek	Recreational	15	Cheney to Upland	1	Delaware
East Branch Perkiomen Creek	Recreational	13	Bucks/Montgomery County Line to Perkiomen Creek	1	Montgomery
Equinunk Creek	Scenic	15	Underwood Lake to Delaware River	3	Wayne
Mill Creek	Scenic	9	Headwaters to Tulpehocken Creek	1	Bucks
Neshaminy Creek	Recreational	14	Little Neshaminy Creek to Neshaminy Falls	1	Bucks
Northkill Creek	Recreational	10	Headwaters to Tulpehocken Creek	2	Berks
Oyster Creek (Oysterdale Creek)	Scenic	12	Landis Store, PA. to Manatawny Creek	2	Berks
Pennypack Creek	Recreational	17	Davisville Road, Upper Moreland Twp. to Delaware River	1	Montgomery, Philadelphia
Pine Creek	Recreational	5	Eckville to Maiden Creek	2	Berks
Rattlesnake Creek	Scenic	7	Williams Pond to Delaware River	3	Pike, Wayne
Shohola Creek	Scenic	25	Headwaters to Delaware River	3	Pike
Skippack Creek	Recreational	14	Franconiaville to Perkiomen Creek	1	Montgomery
Swamp Creek	Recreational	12	Layfield to Perkiomen Creek	1	Montgomery
Wyomissing Creek	Modified Recreational	3	Shillington to Schuylkill River	2	Berks

PRIORITY 1 "B" POTOMAC RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
West Branch Conococheaque Creek	Scenic	58	Headwaters to Conococheaque Creek	6	Franklin

PRIORITY 1 "B" POTOMAC RIVER BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Licking Creek	Scenic	25	Headwaters to Maryland Border	7	Fulton
Wills Creek	Scenic	24	Headwaters to Maryland Border	7	Bedford, Somerset

PRIORITY 1 "B" LAKE ERIE BASIN

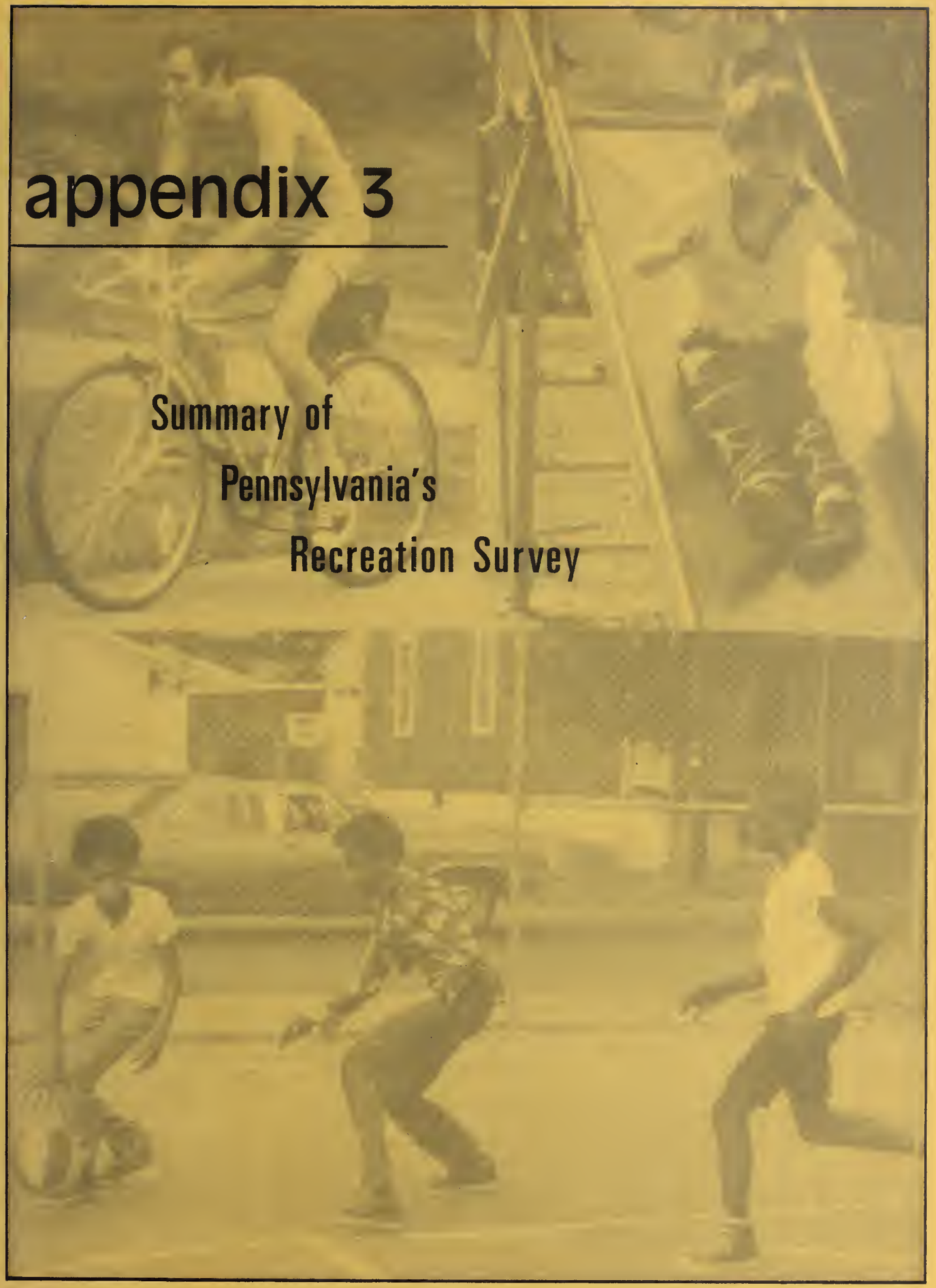
Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Elk Creek	Scenic	25	McKean, PA. to Lake Erie	9	Erie
Little Elk Creek	Scenic	6	Headwaters to Elk Creek	9	Erie
Walnut Creek	Recreational	20	Headwaters to Lake Erie	9	Erie

PRIORITY 1 "B" LAKE ERIE BASIN

Stream Name	Proposed Class	Length (miles)	Segment Limits	Planning Region	County
Conneaut Creek	Scenic	21	Crawford/Erie County Line to Ohio Border	9	Erie

appendix 3

Summary of Pennsylvania's Recreation Survey



PENNSYLVANIA Recreation Survey

PRINCIPAL FINDINGS — RECOMMENDATIONS

Prepared for..

the **COMMONWEALTH** of **PENNSYLVANIA**
OFFICE of **STATE PLANNING** and **DEVELOPMENT**

By..

IDE ASSOCIATES INC.
PHILADELPHIA,
PENNSYLVANIA

Pennsylvania Recreation Survey
Principal Findings and Recommendations

Prepared for

The Commonwealth of Pennsylvania
Office of State Planning and Development
Harrisburg, Pennsylvania 17120

by

Ide Associates, Inc.
7708 City Line Avenue
Philadelphia, Pennsylvania 19151

April, 1975

The preparation of this survey was financed in part through a planning grant from the Bureau of Outdoor Recreation, Department of the Interior, under the provisions of the Land and Water Conservation Fund Act of 1965 (Public Law 88-578).

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COMMONWEALTH OF PENNSYLVANIA
GOVERNOR'S OFFICE
OFFICE OF STATE PLANNING AND DEVELOPMENT
BOX 1323
HARRISBURG 17120

April 30, 1975

The Honorable Milton J. Shapp, Governor
Commonwealth of Pennsylvania
225 Main Capitol Building
Harrisburg, Pennsylvania 17120

Dear Governor Shapp:

I am pleased to submit this report, *Pennsylvania Recreation Survey-Principal Findings and Recommendations.* The summary and report were completed as a part of the update of Pennsylvania's Recreation Plan.

The report presents information on the first comprehensive survey of recreation activity participation and preference conducted in Pennsylvania. It is based on a scientifically designed series of telephone interviews of members of approximately 3,000 households conducted during June-August, 1974, which obtained data concerning 19 recreation activities.

The survey and report were completed by Ide Associates, Inc., Philadelphia, working under the direction of the staff of the Office of State Planning and Development with technical guidance from the Interagency Recreation Planning Task Force.

The survey techniques used were innovative and the information presented in this report provides much new and meaningful data and insights useful in formulating a Commonwealth recreation policy.

Sincerely,

A.E. Simon

A.E. Simon, Director
State Planning and Development

PENNSYLVANIA RECREATION SURVEY
PRINCIPAL FINDINGS AND RECOMMENDATIONS

This report is based on a scientifically designed telephone survey of approximately 3,000 Pennsylvania households conducted in the months of June, July, and August, 1974, using WATS lines from a single location. The recreation participation in 19 outdoor-oriented activities was obtained for a randomly selected individual 5 years of age or older in each household. Interviewers worked from a computer-prepared listing of telephone numbers, each of which had an associated random number table which designated a particular person in an age-ordered listing of household members obtained at the start of the interview. If the designated individual was 10 years of age or older, that individual was interviewed on his/her recreation participation. If the individual was 5 to 9 years of age, an adult member of the household, generally the parent, was interviewed about that person's participation. In addition, a household head was interviewed to obtain attitudes on recreation and the socio-economic characteristics of the household.

For an active child or teenager, the interview approached an hour in length; for an elderly or infirm person with limited activity the interview took approximately 7 minutes. The findings presented in this summary are based upon a detailed examination of some 580 computer-prepared tables containing approximately 130,000 cells of data.

PARTICIPATION IN 19 RECREATION ACTIVITIES

Of the 19 recreation activities surveyed, 12 activities account for three or more days of participation per year per person 5 years of age or older. If a person participates in an activity at all during a day it is counted as an activity day for that activity. The activity days per year per capita, the percent of population participating at least once during the year, and the activity days per person participating for the 19 surveyed activities ranked by activity days per capita are:

	Activity days per capita	Percent of population participating	Activity days per participant
bicycling	30.49	47.9	63.68
swimming	20.72	66.7	31.08
sightseeing or driving for pleasure	16.91	72.5	23.34
basketball	8.74	22.2	39.50
baseball or softball	7.84	32.4	24.24
hiking or nature walks	7.44	40.9	18.23
picnicking	6.13	70.6	8.69
tennis	5.10	24.0	21.28
fishing	4.68	31.9	14.65
golf or miniature golf	3.85	29.0	13.31
football	3.41	16.5	20.68
off-road motorcycling or riding snowmobiles	3.01	12.0	25.16
camping	2.86	26.3	10.86
boating, canoeing or waterskiing	2.58	30.7	8.42
hunting or sport shooting	2.23	14.0	15.90
horseback riding	1.96	11.1	17.61
ice scating	1.86	21.2	8.79
street hockey	1.12	4.6	24.20
snow skiing	0.36	4.9	7.30

The 20.72 activity days per capita for swimming translates to 229 million activity days for the estimated Pennsylvania population 5 and over of 11,054,000. In general, activity is presented in days per capita rather than in total days to facilitate comparison of the recreation participation of different segments of the population. The prevailing practice in state recreation plans of presenting millions of activity days rather than days per capita makes such comparisons very difficult.

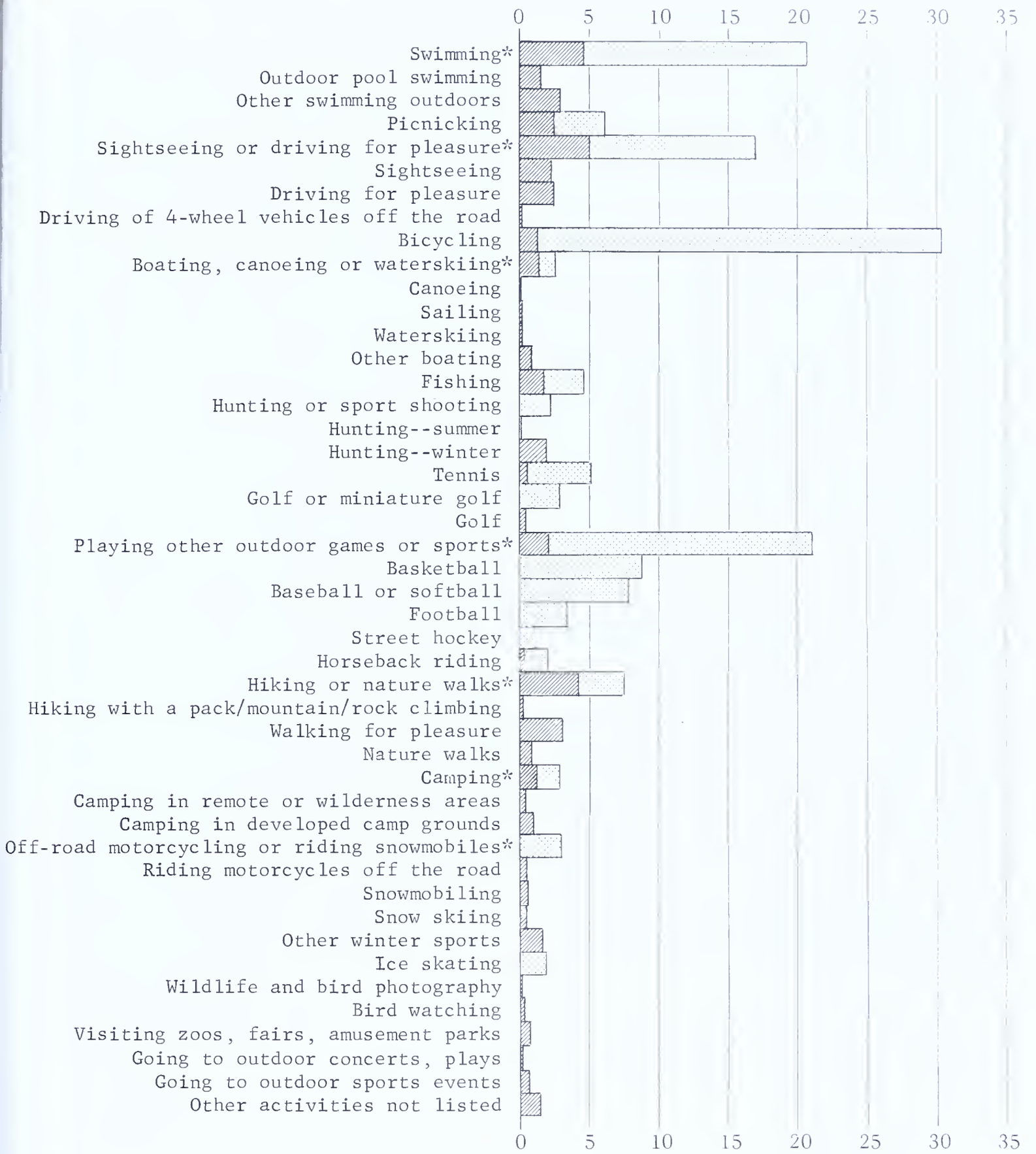
Most state recreation plans, including previous Pennsylvania plans, have been based in part on subsets of data obtained from surveys conducted for the U.S. Bureau of Outdoor Recreation. The activity days per capita obtained in the current study exceed dramatically those obtained in the 1972 U.S. Bureau of Outdoor Recreation study. The differences are partly accounted for by the fact that the current study covers a full year, whereas the 1972 study covered principally June, July, and August; the current study covers persons 5 years of age and over, whereas the 1972 study was restricted to persons 12 years of age and over; and the current study does not exclude indoor days, which account for 5.1% of activity days in the 19 surveyed activities. The principal reason for the differences, however, is that the 1972 study focused on characterizing vacations, trips, and outings, whereas the current study attempts to characterize all participation in each activity over the course of the year as well as the most recent participation in the activity. The greatest differences in participation rates between the two studies are for bicycling, 30.49 vs. 1.34 days per capita, swimming, 20.72 vs. 4.66 days per capita, and tennis, golf, and other outdoor games and sports, 30.06 vs. 3.03 days per capita.

The dramatic differences suggest a need for review of recreation priorities nationally. For example, the proportion of activity days in bicycling is approximately 6 times that of 1972, and the proportion in all outdoor games and sports is 2.6 times that of 1972. In three other major groups of activities the proportion is half that of 1972, namely:

> boating, canoeing or waterskiing, fishing, hunting, horseback riding, hiking and and walking, camping, wildlife and bird photography, and bird watching, off-road motorcycling and winter sports.

It may be noted that pool swimming constituted 34.5% of swimming activity in the 1972 study whereas it is estimated at 74.4%, based on the most recent participation, in the current study, indicating that pool swimming is relatively twice as important as in the earlier study.

RECREATION ACTIVITY DAYS PER CAPITA, U.S., 1972, BY AUDITS & SURVEYS; AND PENNSYLVANIA, 1974, BY IDE ASSOCIATES



* A composite activity with sub-activity detail shown

Summer or winter, 1972, 12 years and over, U.S., by Audits & Surveys for U.S. Bureau of Outdoor Recreation

365 days prior to interview, 1974, 5 years and over, Pa., by Ide Associates for Pennsylvania Office of State Planning and Development

Chart 1

TABLE 1

Recreation Participation, 1972 (U.S., Audits & Surveys)[1] and 1974 (Pennsylvania, IDE Associates)[2]

Activity	Percent of population participating		Activity days per participant		Activity days per capita[3]	
	A & S	Ide	A & S	Ide	A & S	Ide
All listed activities					*34.08*	*131.29*
Swimming		66.7		31.08	4.66	20.72
Outdoor pool swimming	17.8		9.0		1.61	
Other swimming outdoors	33.7		9.0		3.05	
Picnicking	46.5	70.6	5.4	8.69	2.53	6.13
Sightseeing or driving for pleasure		72.5		23.34	4.97	16.91
Sightseeing	37.4		6.1		2.27	
Driving for pleasure	34.1		7.4		2.53	
Driving of 4-wheel vehicles off the road	1.8		9.2		0.17	
Bicycling	10.4	47.9[4]	12.9	63.68[4]	1.34	30.49[4]
Boating, canoeing or waterskiing		30.7		8.42	1.44	2.58
Canoeing	2.9		4.1		0.11	
Sailing	2.6		7.9		0.20	
Waterskiing	5.3		6.4		0.34	
Other boating	14.6		5.4		0.79	
Fishing	23.8	31.9	7.3	14.65	1.74	4.68
Hunting or sport shooting		14.0		15.90		2.23
Hunting - - summer	2.6		4.3		0.11	
Hunting - - winter	13.9		13.5		1.87	
Tennis	5.4	24.0	9.5	21.28	0.51	5.10
Golf or miniature golf		29.0		13.31		3.85
Golf	4.8		8.2		0.40	
Playing other outdoor games or sports	21.9		9.7		2.12	21.11
Basketball		22.2		39.50		8.74
Baseball or softball		32.4		24.24		7.84
Football		16.5		20.68		3.41
Street hockey		4.6		24.20		1.12
Horseback riding	5.4	11.1	5.9	17.61	0.32	1.96
Hiking or nature walks		40.9		18.23	4.31	7.44
Hiking with a pack/mountain/rock climbing	5.4		5.2		0.28	
Walking for pleasure	33.9		9.2		3.10	
Nature walks	16.7		5.6		0.93	
Camping		26.3		10.86	1.32	2.86
Camping in remote or wilderness areas	4.8		7.5		0.36	
Camping in developed camp grounds	10.9		8.8		0.96	
Off-road motorcycling or riding snowmobiles		12.0		25.16	1.01	3.01
Riding motorcycles off the road	4.5		7.8		0.36	
Snowmobiling					0.65	
Snow skiing	4.5	4.9	8.1	7.30	0.36	0.36
Other winter sports	15.5				1.62	
Ice skating		21.2		8.79		1.86
Wildlife and bird photography	2.0		6.2		0.12	
Bird watching	3.9		6.6		0.26	
Visiting zoos, fairs, amusement parks	24.2		3.2		0.77	
Visiting a museum or zoo		5.3				
Going to outdoor concert, plays	6.5		2.5		0.17	
Attending a cultural event or concert[5]		6.7				
Going to outdoor sports events	11.8		5.1		0.61	
Attending a live, amatuer or professional sporting event[5]		12.2				
Other activities not listed	24.2		6.4		1.52	

* *Footnotes on page 5.*

First-time participation

One indicator of the rate at which participation in an activity is growing is given by the fraction of the population who participated in the activity for the first time during the previous year. Of the 19 surveyed activities, there are 8 activities for which the number of individuals who participated in the activity for the first time in the previous 12 months was in excess of 1 percent of the total population 5 years and older. The activities and the associated percent of the population 5 years and older who participated for the first time are as follows:

boating, canoeing or waterskiing.	2.58%
tennis	2.44
off-road motorcycling or snowmobiling	2.08
camping	1.96
ice scating	1.67
snow skiing	1.06
horseback riding	1.05
golf or miniature golf	1.00

Thus, for example, approximately 1 in 50 persons 5 years and older participated in camping for the first time in the previous 12 months.

**Footnotes for page 4.*

[1] Persons 12 years old and over. Based on a home interview survey of approximately 4,000 persons drawn from the non-institutionalized population of the conterminous United States. Data covers participation during June, July, and August 1972, except figures for hunting, snow skiing, snowmobiling, and other winter sports which reflect participation during the period from September 1971 through May 1972. Survey conducted for the U.S. Bureau of Outdoor Recreation.
Source: Computed from data presented in the Statistical Abstract of The United States, 1973, p. 208 and Outdoor Recreation--A Legacy for America, A Summary of Outdoor Recreation in America, 1972-1978, p. 4, and Table 2-2, pp. 42-51, in Appendix "A", An Economic Analysis.

[2] Persons 5 years and over. Based on a telephone survey of approximately 3,000 individuals conducted during the months of June, July, and August, 1974, and covering the 365 days prior to the interview. Includes indoor participation. Survey conducted for the Office of State Planning and Development, Commonwealth of Pennsylvania.

[3] Total activity days divided by the total population. Activity days are the number of different days per year on which an activity occurs regardless of the time spent in the activity. Note that if several activities are engaged in on a single day, each contributes a full day to the activity day total even though one or more may account for only a few minutes actual time.

[4] Includes an unknown amount of non-recreational bicycling.

[5] Obtained only for the Saturday or Sunday immediately preceding the interview, so that summer or annual participation is not available.

The rate of growth of an activity is also related to the percent of participants in the activity who participated for the first time in the previous 12 months. The 8 activities which show the highest percentages of first-time participants are:

snow skiing	21.60%
street hockey	19.05
off-road motorcycling or snowmobiling	17.32
tennis	10.16
horseback riding	9.48
boating, canoeing or waterskiing	8.42
ice skating	7.85
camping	7.43

Thus, for example, slightly more than a tenth of persons who played tennis in the past year, played for the first time during the year.

An indicator of potential growth is the ratio of the number of interested non-participants to participants. The 8 activities with the highest ratios are:

snow skiing	1.95
horseback riding	1.45
off-road motorcycling or snowmobiling	.77
camping	.53
tennis	.48
boating, canoeing or waterskiing	.44
ice skating	.41
street hockey	.38

For example, there are nearly two nonskiers who state they are interested in participating in skiing for each person who skied one or more times in the past year. The fraction of interested persons who will actually become skiers is, of course, unknown.

Kind of place

For 17 of the 19 surveyed activities (bicycling and sightseeing or driving for pleasure are excluded) an estimated 48.4% of activity days occurred at public places, 41.3% at private places, 8.2% at commercial places, and 2.1% at nonprofit or quasi-public places. (See Table 2). Within the public sector, public schools or universities accounted for 20.6%, neighborhood facilities for 6.8%, municipal or county for 42.0%, state for 29.1%, and national for 1.5%.

Public schools, neighborhood parks or playgrounds, and municipal or county parks have above average importance to basketball, baseball or softball, tennis, fishing, football, ice skating, and street hockey. State and national parks and lands have above average importance for hiking or nature walks, picnicking, fishing, camping, boating, canoeing or waterskiing, and hunting or sport shooting. Private facilities are most important for swimming, football, off-road motorcycling or snowmobiling, hunting or sport shooting, horseback riding, and street hockey; commercial facilities, for golf or miniature golf, camping, boating, canoeing or waterskiing, hunting or sport shooting, horseback riding, and street hockey; nonprofit, for swimming, hiking or nature walks, and camping.

TABLE 2

Recreation Participation by Detailed Ownership of Place of Most Recent Participation, Total 17 Activities

(In percent)

	Participants		Activity days	
	Percent of total	Percent of subtotal	Percent of total	Percent of subtotal
All places	*100.0*		*100.0*	
Public	51.0	100.0	48.4	100.0
Public school or university	6.7	13.2	10.0	20.6
Neighborhood	2.3	4.5	3.3	6.8
Municipal or county	20.8	40.8	20.3	42.0
State	20.2	39.6	14.1	29.1
National	0.9	1.8	0.7	1.5
Private	34.1	100.0	41.3	100.0
Subject's home, lands, or vacation home/streets by home	11.7	34.4	17.5	42.3
Home or lands of private individual other than subject	13.5	39.5	11.6	28.2
Private club - - swim club, country club, yacht club, etc.	5.7	16.8	8.5	20.6
Private camp, day or overnight	1.2	3.5	1.0	2.5
Apartment complex, housing development mobile home park	0.4	1.3	0.8	1.9
Private school or university	0.7	2.1	1.0	2.4
Lands or holdings of a business corporation or public utility	0.8	2.5	0.9	2.2
Commercial	12.9	100.0	8.2	100.0
Health spa, commercial athletic club	0.1	0.7	0.1	1.6
Resort hotel, overnight motel	1.9	14.4	1.2	14.8
Commercial golf course, skiing area campground, stables, etc.	11.0	84.8	6.9	83.6
Nonprofit, Quasi-public	2.0	100.0	2.1	100.0
Camp, sponsored by nonprofit agency, day or overnight	0.6	31.4	0.5	23.3
YMCA, YWCA, YMHA, YWHA, Boy's club, Little League, etc.	0.6	32.7	1.1	54.3
Church, synagogue, other religious facility	0.6	31.7	0.4	20.0
Historical or horticultural society, zoo or botanical garden	0.1	4.2	0.1	2.4

TABLE 3

Recreation Participation by Class of Ownership for 17 Activities

	All places	Participants							Activity days						
		Public, total	School, local	State	National	Private	Commercial	Nonprofit	Public, total	School, local	State	National	Private	Commercial	Nonprofit
Total 17 activities	*100.0*	*51.0*	*29.8*	*20.2*	*0.9*	*34.1*	*12.9*	*2.0*	*48.4*	*33.6*	*14.1*	*0.7*	*41.3*	*8.2*	*2.1*
Swimming	100.0	44.0	29.3	14.2	0.5	44.7	8.5	2.8	37.6	27.4	9.6	0.5	53.6	6.2	2.7
Basketball	100.0	55.2	54.0	1.2	0.0	40.6	1.8	2.4	62.2	59.5	2.7	0.0	35.7	0.6	1.5
Baseball or softball	100.0	59.5	55.1	3.9	0.5	37.1	1.7	1.7	63.3	59.8	3.3	0.2	31.4	1.2	4.1
Hiking or nature walks	100.0	62.7	23.6	36.6	2.5	30.9	3.8	2.6	58.9	28.4	29.2	1.3	35.7	3.1	2.3
Picnicking	100.0	66.5	26.6	39.0	0.9	24.7	7.2	1.6	65.1	22.4	41.7	1.0	25.6	7.6	1.7
Tennis	100.0	75.1	73.0	1.9	0.2	20.7	3.3	0.8	71.4	69.6	1.8	0.0	23.9	3.2	1.5
Fishing	100.0	65.2	31.6	32.4	1.2	28.0	6.4	0.5	68.2	29.1	37.1	2.0	27.3	4.0	0.5
Golf or miniature golf	100.0	10.5	10.0	0.3	0.2	15.8	73.7	0.0	11.7	11.4	0.2	0.1	34.2	54.1	0.0
Football	100.0	46.8	45.0	1.4	0.3	52.1	0.0	1.1	48.2	46.6	1.4	0.3	51.2	0.0	0.6
Offroad motorcycling or riding snowmobiles	100.0	23.2	11.6	11.4	0.3	70.5	6.3	0.0	21.7	11.1	10.2	0.4	75.8	2.5	0.0
Camping	100.0	45.2	3.5	38.9	2.7	24.7	21.9	8.2	34.1	2.2	30.0	1.9	28.1	26.9	10.8
Boating, canoeing or waterskiing	100.0	59.9	24.3	34.2	1.5	27.3	10.8	2.0	56.4	24.0	30.7	1.6	33.1	9.5	0.9
Hunting or sport shooting	100.0	29.7	1.1	26.7	1.9	67.2	1.9	1.1	26.1	1.2	20.8	4.1	70.9	1.2	1.8
Horseback riding	100.0	11.1	6.5	3.3	1.3	56.5	32.1	0.3	2.7	1.2	1.2	0.2	73.6	23.7	0.1
Ice skating	100.0	49.3	42.9	6.4	0.0	29.9	19.5	1.3	46.5	37.4	9.2	0.0	32.5	19.4	1.5
Street hockey	100.0	37.5	37.5	0.0	0.0	59.4	2.0	1.0	44.5	44.5	0.0	0.0	54.5	0.8	0.2
Snow skiing	100.0	10.8	4.3	6.6	0.0	15.0	74.1	0.0	9.0	2.9	6.1	0.0	9.9	81.0	0.0

Recreation facility capacity limitations

For an estimated 13.9% of the activity days associated with the 17 activities for which kind of place information was obtained, the participant was inconvenienced or bothered by overcrowding. Five activities show a percentage of activity days associated with crowding which is greater than the percentage across all activities:

tennis	46.4%
snow skiing	35.3
ice skating	26.4
golf	19.2
swimming	14.2

The activities listed above are the activities most constrained currently by limitations in the capacity of recreation facilities.

Note that although participation in snow skiing, on the one hand, is highly constrained by limitations in capacity, only a very small fraction of all recreation activity days are devoted to snow skiing. Providing additional snow skiing facilities, therefore, could result in a large increase in snow skiing participation but could produce only a very small increase in total recreation activity. Swimming, on the other hand, accounts for more than 50 times as many activity days as does snow skiing. Thus, even though swimming participation is relatively less constrained by capacity limitations, providing additional swimming facilities could result in appreciable increases in total recreation activity.

To see which kinds of additional capacity could be expected to have the greatest impact on total recreation activity, it is necessary to weight the measures of capacity limitation as given above by the proportion of total recreation activity which is devoted to the particular activity. The results, given as percentages of activity days distributed among the 17 activities and adding to 100%, follow:

swimming	25.2%
tennis	23.5
basketball	8.5
picnicking	7.7
golf or miniature golf	7.6
ice skating	4.7
baseball or softball	4.6
fishing	4.0
camping	3.2
hiking or nature walks	2.8
boating, canoeing or waterskiing	2.5
football	2.3
hunting or sport shooting	1.5
snow skiing	1.1
horseback riding	0.6
street hockey	0.2
off-road motorcycling or snowmobiling	0.03

The foregoing percentages may be viewed as priority indicators among activities of the need for additional capacity. It should be noted, however, that the ranking does not take account of differences among activities in the cost of providing for additional activity days, nor does it take account of the differential accessibility of facilities.

Distance of place from home

For the 17 surveyed activities for which kind of place data were obtained, approximately three-quarters of activity days for recreation away from home are accounted for by places located within a half an hour from home.

TABLE 4

Away from Home Recreation Participation by Travel Time One-way, Most Recent Occasion, 17 Activities

(In percent)

Travel time one-way	Participants		Activity days	
	%	Cum.	%	Cum.
Total	*100.0*		*100.0*	
Less than 5 minutes	7.8	7.8	13.8	13.8
5 minutes	11.8	19.6	17.5	31.3
6 to 14 minutes	13.7	33.3	15.2	46.5
15 minutes	9.9	43.2	10.4	56.9
16 to 29 minutes	10.3	53.5	10.0	66.9
30 minutes	10.5	64.0	7.9	74.8
31 to 59 minutes	6.3	70.3	4.8	79.6
1 hour	7.8	78.1	5.2	84.8
61 minutes to 1 hour 59 minutes	5.1	83.2	3.3	88.1
2 hours to 3 hours 59 minutes	10.2	93.4	7.0	95.1
4 hours to 7 hours 59 minutes	3.8	97.2	2.3	97.4
8 hours or longer	2.8	100.0	2.6	100.0

The effect of distance of facilities on recreation participation was investigated by asking respondents what would be the effect if the places where they participate away from home were located only half as far away as they actually are. Would the respondent participate much more often. slightly more often, or about as often as now? The proportion of activity days for an activity which are associated with "more often" responses gives a measure of the extent to which participation in the activity is constrained by distance of facilities.

For an estimated 16.7% of the activity days associated with the same 17 activities, participation was constrained by distance of facilities. Nine activities show a higher-than-average percentage of activity days suffering from distance constraints:

snow skiing	44.2%
boating, canoeing or waterskiing	36.3
camping	31.4
picnicking	27.6
fishing	27.1
ice skating	20.9
swimming	19.8
horseback riding	18.1
hiking or nature walks	18.0

The activities listed above are the activities which would be expected to experience a greater-than-average expansion in activity days as a result of reducing distance of facilities as distinct from adding capacity.

The percentages above indicate which activities would experience the greatest expansion as a result of reducing distance of facilities. To see for which activities reducing distance of facilities would have the greatest impact on total recreation activity, it is necessary to weight the percentages above by the proportion of total recreation activity which is devoted to the particular activity. Such weighting shows that the activities for which increased proximity of facilities would have the greatest impact on total recreation activity are, in order of decreasing relative importance: swimming, picnicking, hiking or nature walks, fishing, boating, canoeing, or waterskiing, and camping.

TABLE 5

Effect of Distance of Facility on Recreation Activity Days Per Capita, 17 Activities

Activity	Total days per capita	More than 15 minutes away from home	Would participate much more often	Would participate slightly more often	Total more often		
					Days per capita	In percent	Percent of total days per capita
All 17 activities..	*83.89*	*36.18*	*8.34*	*5.67*	*14.01*	*100.0*	*16.7*
Swimming	20.72	8.78	2.61	1.50	4.11	29.3	19.8
Picnicking	6.13	4.64	0.98	0.71	1.69	12.1	27.6
Hiking or nature walks	7.44	3.77	0.73	0.61	1.34	9.6	18.0
Fishing	4.68	3.15	0.88	0.39	1.27	9.0	27.1
Boating, canoeing or waterskiing	2.58	2.00	0.60	0.34	0.94	6.7	36.3
Camping	2.86	2.59	0.55	0.34	0.90	6.4	31.4
Baseball or softball	7.84	1.84	0.29	0.42	0.71	5.1	9.0
Basketball	8.74	1.86	0.16	0.42	0.58	4.2	6.7
Golf or miniature golf	3.85	2.24	0.22	0.25	0.47	3.3	12.2
Ice skating	1.86	0.73	0.19	0.20	0.39	2.8	20.9
Tennis	5.10	1.11	0.23	0.13	0.36	2.6	7.1
Horseback riding	1.96	0.70	0.26	0.09	0.35	2.5	18.1
Hunting or sport shooting	2.23	1.16	0.22	0.13	0.35	2.5	15.7
Off-road motorcycling or snowmobiling	3.01	0.82	0.20	0.05	0.25	1.7	8.1
Snow skiing	0.36	0.27	0.11	0.05	0.16	1.1	44.2
Football	3.41	0.47	0.09	0.03	0.11	0.8	3.4
Street hockey	1.12	0.05	0.02	0.02	0.04	0.3	3.3

We have presented two priority lists showing which activities represent the largest components of constraint of total recreation activity resulting from limited availability of facilities. The list on page 9 is based on constraint due to over-crowding and the list in Table 5 is based on constraint due to excessive distance to facilities. Observe that swimming appears at the top of both lists, indicating that the highest priority should be given to expanding the availability of swimming facilities The only other activity which appears near the top of both lists is picnicking.

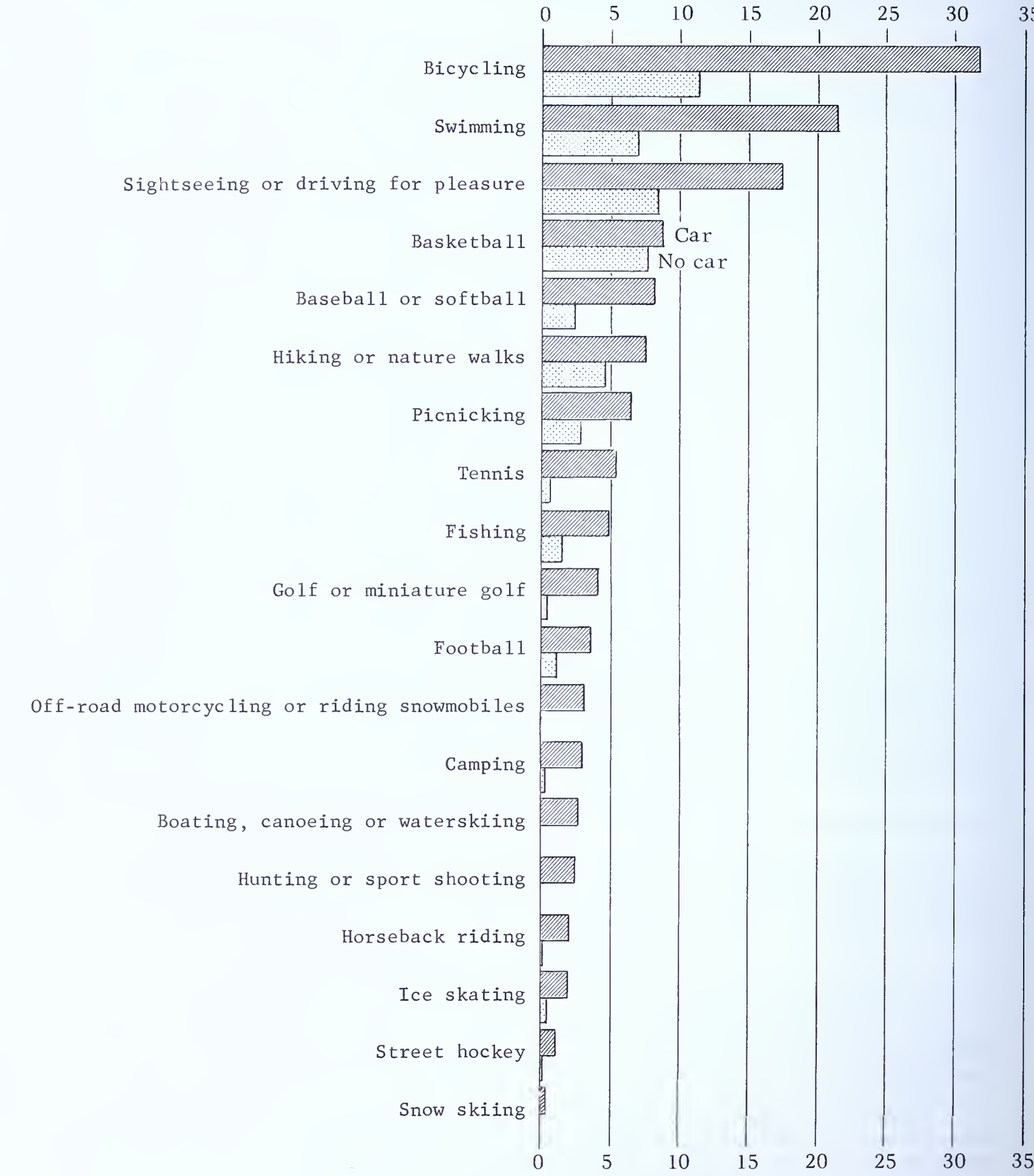
THE RECREATIONALLY DISADVANTAGED

There is strong evidence to suggest that certain subgroups of the population are deprived of access to recreation. Particularly disadvantaged subgroups are: individuals in noncar-owning households, individuals in low-income households, nonwhites, females, the elderly, and the handicapped. Moreover, persons living in high population density places are disadvantaged with respect to rural or wilderness type activities.

All of the above groups have considerably lower recreation participation rates compared to other groups in the population. Moreover, it is clear that the lower participation rates for the disadvantaged subgroups are not the result of a lack of interest in recreation or a diminished desire to participate. It should be noted that the survey results understate the degree of disadvantage since the most isolated and disadvantaged population segments are least likely to have a telephone. Also, the survey results presented do not show the effect of multiple disadvantages.

In what follows, comparisons of actual participation are made in terms of activity days per capita. Of course, low actual participation is not of itself evidence of deprivation. Deprivation is indicated, however, for groups with low actual participation who also have expressed a high level of interest in participation relative to actual participation. Thus, the extent to which recreation interests are unsatisfied may be measured by the number of interested nonparticipants as a percent of the number of current participants.

RECREATION ACTIVITY DAYS PER CAPITA, 19 ACTIVITIES, PENNSYLVANIA, CAR-OWNING AND NONCAR-OWNING HOUSEHOLDS, 1974



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Individuals in noncar-owning households

Recreation participation is dramatically lower for individuals in noncar-owning households than it is for those in car-owning households. Across all 19 surveyed activities, the total annual participation of individuals in noncar-owning households is only 50.14 activity days per capita, compared to 136.64 activity days per capita for those in car-owning households.

TABLE 6

Activity Days Per Capita, 19 Activities, by Car Ownership in Household, Pennsylvania, 1974

	Population 5 and over	Own a car	No car
All activities	*131.29*	*136.64*	*50.14*
Bicycling	30.49	31.75	11.40
Swimming	20.72	21.63	7.04
Sightseeing or driving for plesaure	16.91	17.46	8.49
Basketball	8.74	8.81	7.72
Baseball or softball	7.84	8.19	2.50
Hiking or nature walks	7.44	7.62	4.74
Picnicking	6.13	6.35	2.84
Tennis	5.10	5.40	0.65
Fishing	4.68	4.89	1.52
Golf or miniature golf	3.85	4.08	0.45
Football	3.41	3.56	1.14
Off-road motorcycling or riding snowmobiles	3.01	3.20	0.08
Camping	2.86	3.03	0.29
Boating, canoeing or waterskiing	2.58	2.72	0.52
Hunting or sport shooting	2.23	2.37	0.01
Horseback riding	1.96	2.08	0.16
Ice skating	1.86	1.96	0.44
Street hockey	1.12	1.18	0.17
Snow skiing	0.36	0.38	0.00

Moreover, for each of the 19 surveyed activities considered separately, the participation for individuals in noncar-owning households is lower than it is for those in car-owning households. In four activities participation among individuals in noncar-owning households virtually disappears, namely: off-road motorcycling or riding snowmobiles, boating, canoeing or waterskiing, hunting or sport shooting, and snow skiing.

The lower participation rates of individuals in noncar-owning households are not the result of lack of interest in recreation. For each of the 19 surveyed activities, the level of unsatisfied recreation interest, as measured by the number of interested non-participants as a percent of the number of current participants, is considerably higher among individuals in noncar-owning households than among those in car-owning households. For example, for each individual in a noncar-owning household who participated in camping in the past year, there are another 2.5 who are interested in participating in camping. The corresponding figure for camping among individuals in car-owning households is only 0.5.

TABLE 7

Unsatisfied Recreation Interest, 19 Activities, by Car Ownership in Household, Pennsylvania, 1974

(Interested nonparticipants as a percent of current participants)

	Own a car	No car
Bicycling	13.3	36.0
Swimming	4.3	23.4
Sightseeing or driving for pleasure	2.9	17.9
Basketball	19.0	39.1
Baseball or softball	11.1	52.1
Hiking or nature walks	17.3	31.5
Picnicking	4.2	10.7
Tennis	46.3	186.4
Fishing	27.4	95.8
Golf or miniature golf	24.9	86.8
Football	18.4	60.6
Off-road motorcycling or riding snowmobiles	75.5	250.0
Camping	51.1	248.0
Boating, canoeing or waterskiing	42.7	106.0
Hunting or sport shooting	38.1	475.0
Horseback riding	143.8	200.0
Ice skating	40.2	118.8
Street hockey	34.2	400.0
Snow skiing	190.4	- - - -

It is true, no doubt, that car-ownership effects are to some extent confounded with age and income effects. Noncar-owning households include a concentration of elderly and low-income individuals. However, the evidences of deprivation among individuals in noncar-owning households are more pronounced than they are for either elderly or low-income individuals considered separately, indicating that car-ownership itself is a major determinant of access to recreation.

In fact, in outing type activities the recreational deprivation of individuals in noncar-owning households is comparable to that of individuals having 1 or more of 8 specified disability conditions, namely: confined to a wheelchair, required to use braces, crutches or a walker, blind or nearly blind, deaf or nearly deaf, having a coordination disability such as palsy, having a heart or lung disability which limits activity, being emotionally disturbed, or mentally retarded. Both noncar-owners and handicapped persons each participated at least once in an average of 1.5 of the outing type activities in the previous year compared to 3.7 for all persons 5 and over. The activities included as outing type activities are: swimming, picnicking, boating, canoeing or waterskiing, fishing, hunting or sport shooting, hiking or nature walks, camping, off-road motorcycling or riding snowmobiles, sightseeing or driving for pleasure, and snow skiing.

RECREATION ACTIVITY DAYS PER CAPITA, 19 ACTIVITIES, PENNSYLVANIA, BY FAMILY INCOME, 1974

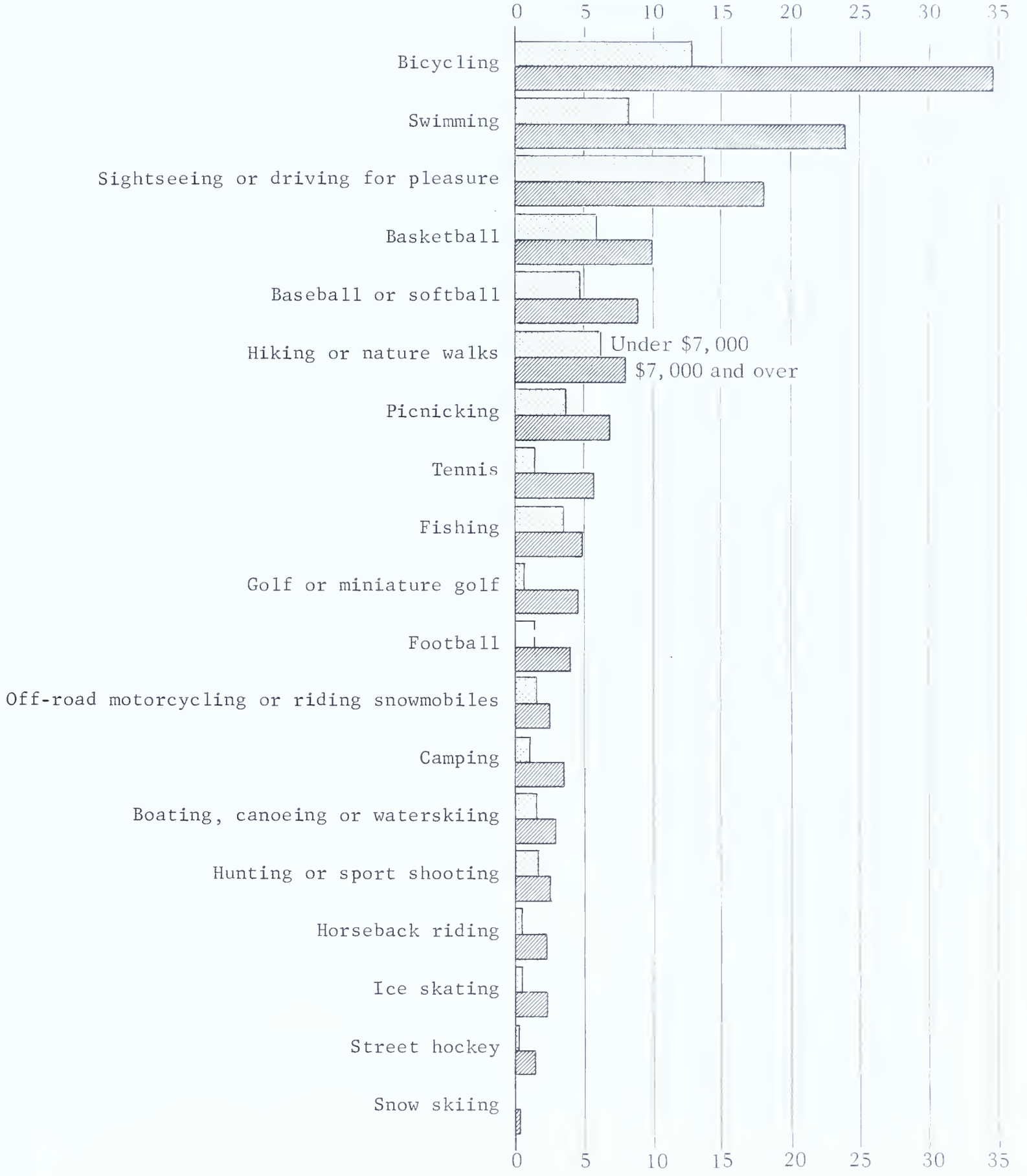


Chart 3

Individuals in low-income households

Recreation participation is considerably lower for individuals in low-income households than for those in higher-income households. Across all 19 surveyed activities, the total annual participation of individuals in households with total annual incomes under $7,000 is 68.68 activity days per capita, compared to 147.50 activity days per capita for those in households with incomes of $7,000 or more.

TABLE 8

Activity Days Per Capita, 19 Activities, by Total Family Income, Pennsylvania, 1974

	Population 5 and over	Total family income	
		Under $7,000	$7,000 and over
All activities	*131.29*	*68.68*	*147.50*
Bicycling	30.49	12.84	34.71
Swimming	20.72	8.24	23.81
Sightseeing or driving for pleasure	16.91	13.68	17.99
Basketball	8.74	5.81	9.79
Baseball or softball	7.84	4.68	8.78
Hiking or nature walks	7.44	6.09	7.96
Picnicking	6.13	3.65	6.77
Tennis	5.10	1.54	5.74
Fishing	4.68	3.40	4.91
Golf or miniature golf	3.85	0.64	4.48
Football	3.41	1.40	3.99
Off-road motorcycling or riding snowmobiles	3.01	1.52	3.51
Camping	2.86	1.00	3.40
Boating, canoeing or waterskiing	2.58	1.39	2.98
Hunting or sport shooting	2.23	1.61	2.35
Horseback riding	1.96	0.41	2.30
Ice skating	1.86	0.48	2.25
Street hockey	1.12	0.18	1.35
Snow skiing	0.36	0.13	0.42

Moreover, for each of the 19 surveyed activities considered separately, the participation for individuals in low-income households (under $7,000) is lower than it is for those in higher-income households ($7,000 or more). $7,000 was chosen as the dividing point on the income scale because recreation participation in the $4,000 to $6,999 class is 41.9% below average participation, whereas participation in the $7,000 to $9,999 class is only 7.2% below average.

The levels of unsatisfied recreation interest, as measured by the number of interested nonparticipants as a percent of the number of current participants, are higher for 16 of the 19 surveyed activities for individuals in low-income households than they are for individuals in higher-income households. The 3 exceptions are picnicking, basketball, and hiking or nature walks.

TABLE 9

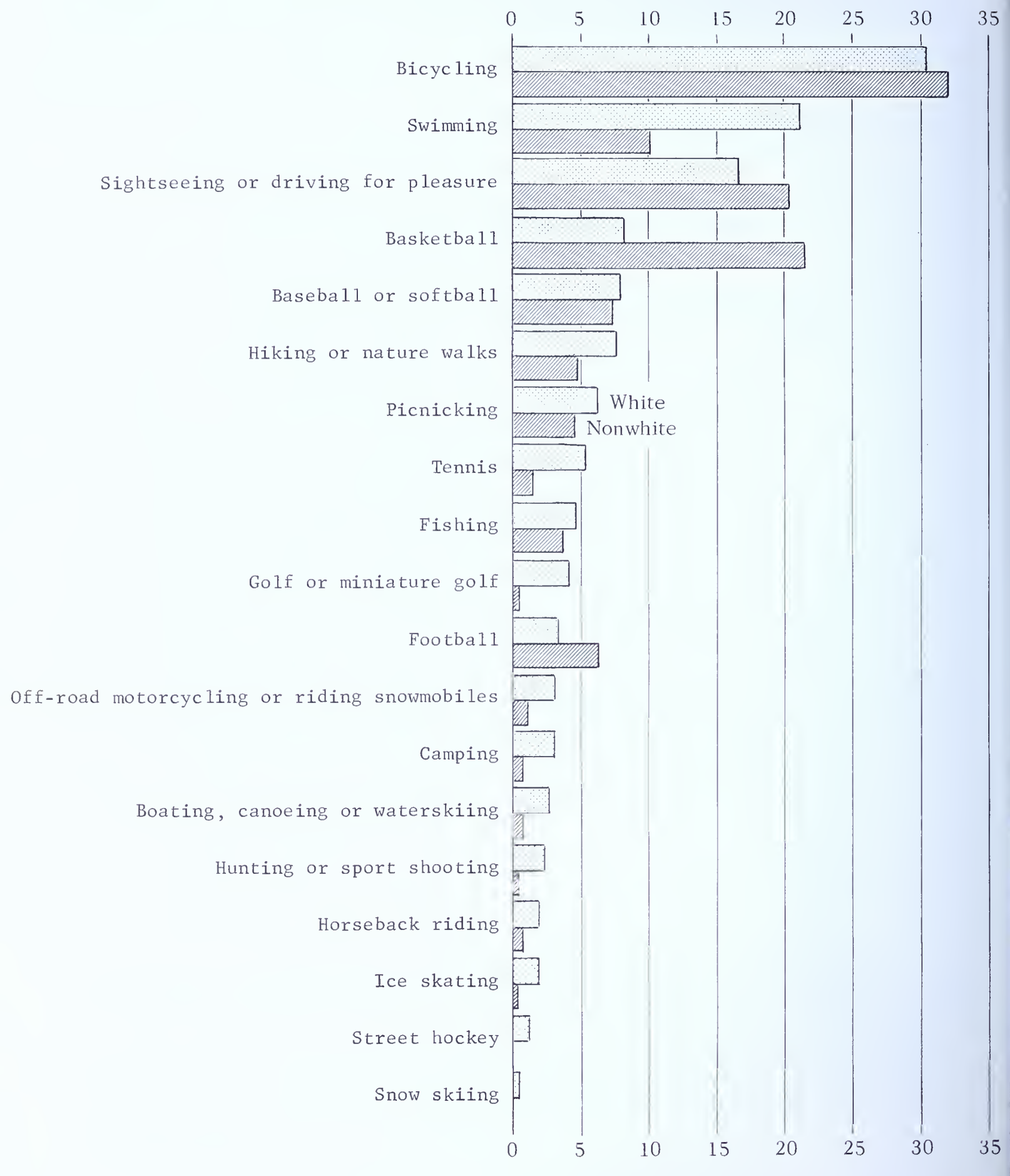
Unsatisfied Recreation Interest, 19 Activities, by Total Family Income, Pennsylvania, 1974

(Interested nonparticipants as a percent of current participants)

	Under $7,000	$7,000 and over
Bicycling	17.4	13.2
Swimming	11.2	4.1
Sightseeing or driving for pleasure	6.1	3.0
Basketball	16.5	19.1
Baseball or softball	14.5	11.0
Hiking or nature walks	16.9	17.2
Picnicking	4.3	4.3
Tennis	51.6	47.7
Fishing	45.9	27.8
Golf or miniature golf	62.8	24.1
Football	29.7	18.7
Off-road motorcycling or riding snowmobiles	96.6	73.5
Camping	66.0	51.7
Boating, canoeing or waterskiing	63.9	42.3
Hunting or sport shooting	42.3	37.7
Horseback riding	177.8	150.1
Ice skating	60.8	40.6
Street hockey	44.4	33.7
Snow skiing	243.8	194.9

Although individuals in low-income households appear to be deprived of access to recreation, their deprivation apparently is not so severe as it is for individuals in noncar owning households. In other words, lack of car-ownership appears to be a generally stronger determinant of access to recreation than is income.

RECREATION ACTIVITY DAYS PER CAPITA, 19 ACTIVITIES, PENNSYLVANIA, WHITE AND NONWHITE, 1974



Chart

Nonwhites

Across all 19 surveyed activities, the total recreation participation of nonwhite individuals is 116.19 activity days per capita, compared to 132.11 activity days per capita for white individuals.

TABLE 10

Activity Days Per Capita, 19 Activities, by Race, Pennsylvania, 1974

	Population 5 and over	White	Non-white
All activities	*131.29*	*132.11*	*116.19*
Bicycling	30.49	30.39	32.14
Swimming	20.72	21.21	10.11
Sightseeing or driving for pleasure	16.91	16.75	20.28
Basketball	8.74	8.14	21.52
Baseball or softball	7.84	7.88	7.26
Hiking or nature walks	7.44	7.59	4.69
Picnicking	6.13	6.22	4.49
Tennis	5.10	5.30	1.39
Fishing	4.68	4.74	3.73
Golf or miniature golf	3.85	4.03	0.44
Football	3.41	3.28	6.21
Off-road motorcycling or riding snowmobiles	3.01	3.11	1.12
Camping	2.86	2.97	0.75
Boating, canoeing or waterskiing	2.58	2.67	0.70
Hunting or sport shooting	2.23	2.33	0.37
Horseback riding	1.96	2.02	0.71
Ice skating	1.86	1.93	0.30
Street hockey	1.12	1.18	0.00
Snow skiing	0.36	0.38	0.00

Moreover, for 15 of the 19 activities considered separately, participation by nonwhites is lower than by whites. The 4 exceptions are basketball, football, bicycling, and sightseeing or driving for pleasure, with basketball being the one activity for which participation by nonwhites is significantly greater than is participation by whites.

The participation rates for nonwhites are lower than for whites, but not overwhelmingly so. However, the participation rates do not tell the whole story.

The level of unsatisfied recreation interest (interested nonparticipants as a percent of current participants) among nonwhites is much higher for many of the activities than it is among whites.

TABLE 11

Unsatisfied Recreation Interest, 19 Activities, by Race, Pennsylvania, 1974

(Interested nonparticipants as a percent of current participants)

	White	Non-white
Bicycling	13.6	16.9
Swimming	4.5	8.3
Sightseeing or driving for pleasure	3.3	8.2
Basketball	19.8	13.8
Baseball or softball	11.6	17.6
Hiking or nature walks	17.5	24.6
Picnicking	4.5	3.4
Tennis	46.2	150.0
Fishing	27.1	86.3
Golf or miniature golf	25.0	82.1
Football	18.7	34.4
Off-road motorcycling or riding snowmobiles	74.0	261.5
Camping	50.1	311.1
Boating, canoeing or waterskiing	42.6	114.8
Hunting or sport shooting	38.9	118.2
Horseback riding	143.0	185.0
Ice skating	39.5	212.5
Street hockey	35.8	- - -
Snow skiing	190.8	- - -

Activities for which deprivation among nonwhites appears to be especially severe are: tennis, fishing, golf or miniature golf, off-road motorcycling or riding snowmobiles, camping, boating, canoeing or waterskiing, hunting or sport shooting, and ice skating. (No percentages are available for street hockey and snow skiing by nonwhites since no nonwhite participants in these activities were encountered in the survey.)

RECREATION ACTIVITY DAYS PER CAPITA, 19 ACTIVITIES, PENNSYLVANIA

BY SEX, 1974

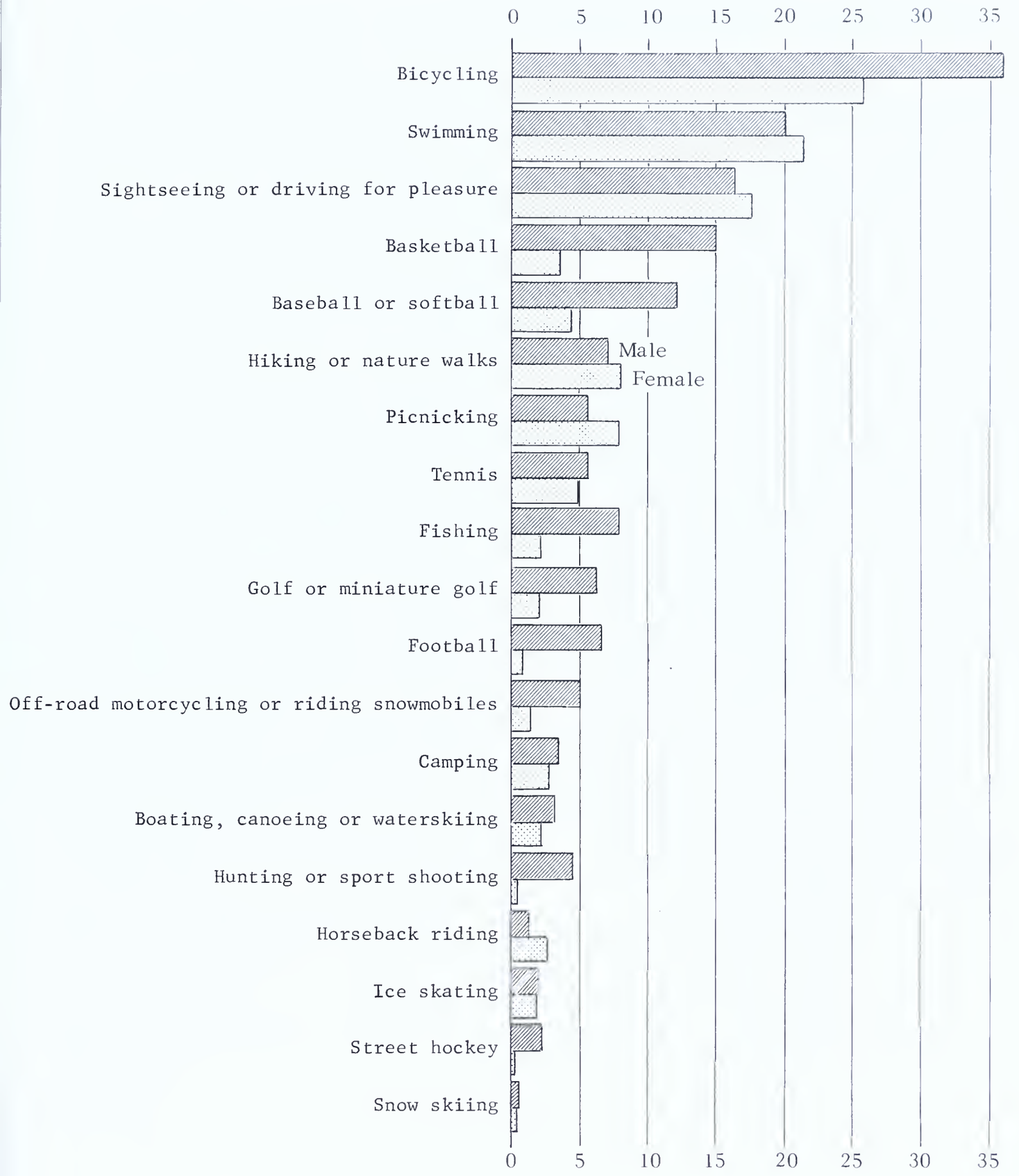


Chart 5

Females

Across all 19 surveyed activities, the total annual participation by females is 107.45 activity days per capita, compared to 158.59 activity days per capita by males.

TABLE 12

Activity Days Per Capita, 19 Activities, by Sex, Pennsylvania, 1974

	Population 5 and over	Male	Female
All activities	*131.29*	*158.59*	*107.45*
Bicycling	30.49	35.94	25.75
Swimming	20.72	20.02	21.35
Sightseeing or driving for pleasure	16.91	16.25	17.45
Basketball	8.74	14.91	3.36
Baseball or softball	7.84	12.00	4.20
Hiking or nature walks	7.44	6.96	7.87
Picnicking	6.13	5.50	6.69
Tennis	5.10	5.46	4.79
Fishing	4.68	7.74	2.01
Golf or miniature golf	3.85	5.96	2.01
Football	3.41	6.49	0.70
Off-road motorcycling or riding snowmobiles	3.01	4.91	1.35
Camping	2.86	3.18	2.57
Boating, canoeing or waterskiing	2.58	3.12	2.11
Hunting or sport shooting	2.23	4.44	0.30
Horseback riding	1.96	1.19	2.63
Ice skating	1.86	1.94	1.79
Street hockey	1.12	2.19	0.19
Snow skiing	0.36	0.40	0.32

The level of unsatisfied recreation interest (interested nonparticipants as a percent of current participants) among females is higher than for males in 16 of the 19 activities. The exceptions are swimming, horseback riding, and snow skiing.

TABLE 13

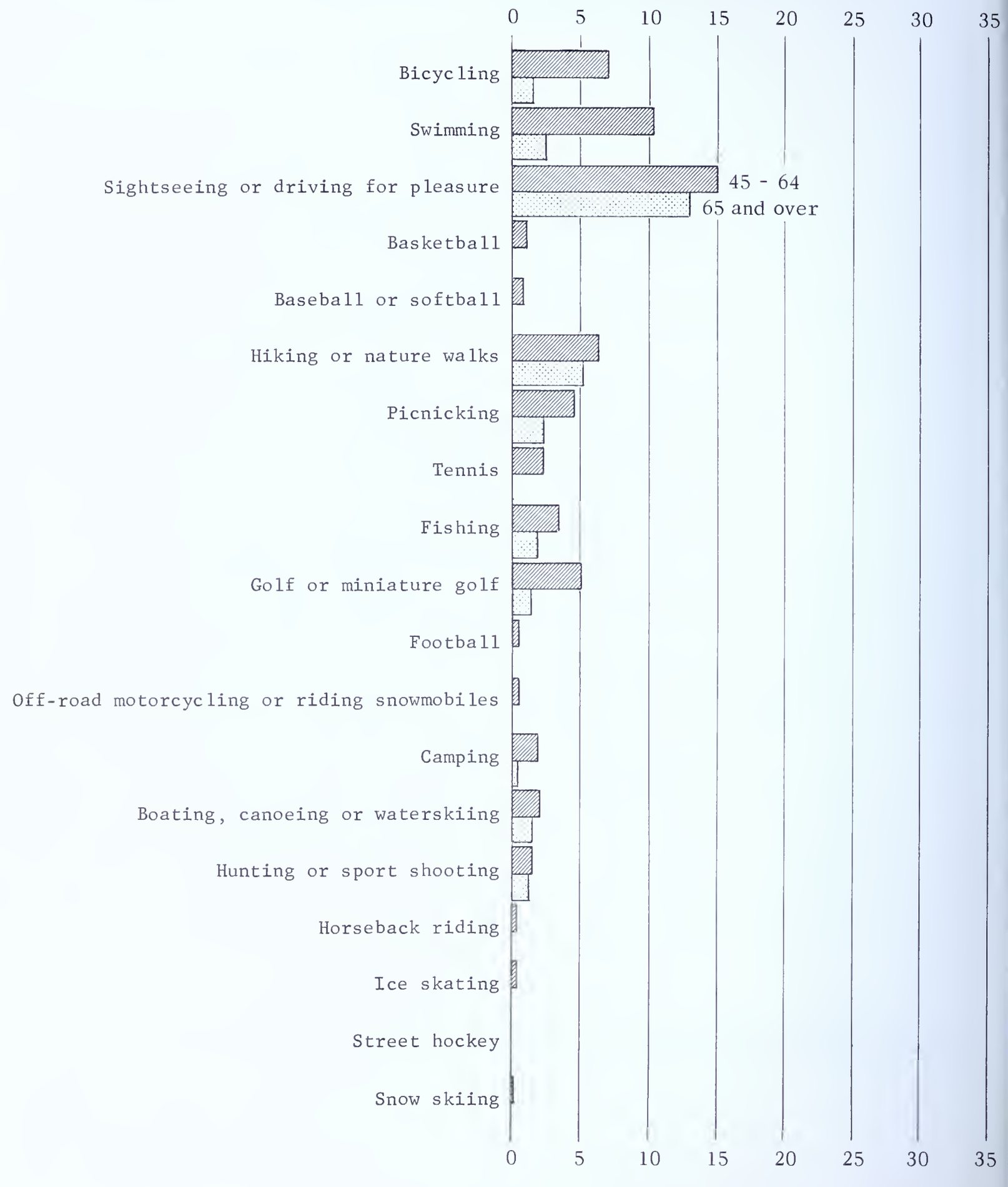
Unsatisfied Recreation Interest, 19 Activities, by Sex, Pennsylvania, 1974

(Interested nonparticipants as a percent of current participants)

	Male	Female
Bicycling	10.7	16.4
Swimming	5.0	4.3
Sightseeing or driving for pleasure	3.0	3.8
Basketball	14.0	30.5
Baseball or softball	8.3	17.2
Hiking or nature walks	17.5	17.7
Picnicking	4.4	4.5
Tennis	36.6	59.8
Fishing	21.0	42.2
Golf or miniature golf	20.0	33.1
Football	15.5	34.6
Off-road motorcycling or riding snowmobiles	71.6	83.2
Camping	52.7	53.4
Boating, canoeing or waterskiing	43.4	44.4
Hunting or sport shooting	28.7	123.7
Horseback riding	155.8	136.1
Ice skating	35.9	45.4
Street hockey	32.6	54.9
Snow skiing	218.0	173.2

It is interesting that the greatest difference between the level of unsatisfied recreation interest for females compared to males occurs for hunting or sport shooting.

RECREATION ACTIVITY DAYS PER CAPITA, 19 ACTIVITIES, PENNSYLVANIA
AGE 45 - 64, AND 65 AND OVER, 1974



Chart

The elderly

For the 19 surveyed activities, there are strong relationships between recreation participation and age. For 5 activities, activity days peak in the 5 to 9 age category, namely bicycling, swimming, hiking or nature walks, picnicking, and horseback riding. Four activities peak in the 20 to 29 age group, namely sightseeing or driving for pleasure, tennis, boating, canoeing or waterskiing, and hunting or sport shooting. The only activity peaking in the 45 to 64 age bracket is golf or miniature golf. The remaining activities peak in the 10-19 age group.

Recreation participation in the 19 activities declines dramatically above age 64. For 9 activities participation virtually disappears. An activity list which adequately represents the recreation interests of the elderly should contain one or more activities which peak in the 65 and older age category.

TABLE 14

Activity Days Per Capita, 19 Activities, by Age, Pennsylvania, 1974

	Population 5 and over	5 - 9	10 - 19	20 - 29	30 - 44	45 - 64	65 plus
All activities	*131.29*	*215.15*	*258.87*	*149.20*	*100.95*	*63.04*	*31.17*
Bicycling	30.49	90.12	77.56	22.48	13.23	7.09	1.63
Swimming	20.72	39.84	35.87	21.97	20.18	10.40	2.36
Sightseeing or driving for pleasure	16.91	17.38	17.09	25.13	15.89	14.08	12.97
Basketball	8.74	7.35	27.27	11.20	3.89	1.12	0.00
Baseball or softball	7.84	15.13	23.20	6.50	4.25	0.85	0.04
Hiking or nature walks	7.44	10.36	7.84	8.41	7.65	6.43	5.17
Picnicking	6.13	9.10	6.11	8.05	7.41	4.63	2.28
Tennis	5.10	1.46	8.90	10.73	4.45	2.27	0.07
Fishing	4.68	3.53	7.15	5.82	4.92	3.44	1.88
Golf or miniature golf	3.85	1.00	3.83	4.22	4.40	5.14	1.36
Football	3.41	3.55	11.62	3.75	0.84	0.39	0.00
Off-road motorcycling or riding snowmobiles	3.01	1.75	8.13	4.63	1.96	0.58	0.08
Camping	2.86	2.95	4.96	3.12	3.17	1.84	0.38
Boating, canoeing or waterskiing	2.58	2.96	2.83	3.18	2.82	2.14	1.57
Hunting or sport shooting	2.23	0.12	3.09	3.42	2.58	1.60	1.29
Horseback riding	1.96	5.45	3.38	2.52	1.82	0.34	0.06
Ice skating	1.86	2.21	4.71	2.67	1.02	0.54	0.03
Street hockey	1.12	0.73	4.67	0.86	0.07	0.01	0.00
Snow skiing	0.36	0.16	0.68	0.54	0.43	0.16	0.00

Of the 19 activities surveyed for persons aged 65 or over, there is substantial unsatisfied interest in swimming and bicycling.

TABLE 15

Unsatisfied Recreation Interest, 19 Activities, by Age, Pennsylvania, 1974

(Interested nonparticipants as a percent of current participants)

	5 - 9	10 - 19	20 - 29	30 - 44	45 - 64	65 plus
Bicycling	3.4	2.9	21.3	22.7	27.4	64.3
Swimming	0.5	2.3	4.6	4.5	9.0	21.7
Sightseeing or driving for pleasure	2.5	5.0	3.4	3.0	2.6	5.2
Basketball	48.4	10.5	20.2	27.0	44.0	0.0
Baseball or softball	16.5	5.6	13.8	19.2	16.6	10.0
Hiking or nature walks	14.0	20.8	17.0	17.5	17.3	17.1
Picnicking	4.1	6.4	3.2	3.3	4.9	5.0
Tennis	84.5	34.4	39.0	73.8	58.1	27.3
Fishing	41.2	19.5	27.4	33.7	33.6	30.3
Golf or miniature golf	44.3	19.5	22.1	25.7	33.8	23.9
Football	39.7	11.2	19.2	37.9	39.0	0.0
Off-road motorcycling or riding snowmobiles	80.0	88.5	60.3	72.0	91.4	133.3*
Camping	54.1	47.8	64.7	49.7	55.8	47.1
Boating, canoeing or waterskiing	56.1	44.8	33.8	50.7	43.1	41.4
Hunting or sport shooting	300.0	57.2	28.0	30.4	30.0	23.9
Horseback riding	132.4	130.8	138.5	210.7	152.2	100.0*
Ice skating	76.9	19.9	47.0	63.0	45.6	0.0
Street hockey	64.6	21.4	76.9	200.0*	50.0*	0.0
Snow Skiing	286.2	148.5	200.9	294.8	110.3	0.0

*Not reliable because denominator of percent is close to zero.

The disabled or handicapped

Approximately 1 in 8 Pennsylvania households have one or more individuals with one or more of 8 specified disability conditions. Among the disabled individuals, approximately a half have heart or lung conditions and approximately a tenth are persons confined to a wheel chair.

In addition to the 19 outdoor-oriented activities in the original activity list, disabled respondents were questioned about 7 activities which are more sedentary or indoor-oriented, namely: bowling, visiting a museum or zoo, attending a movie, play or concert, attending a live sporting event, participating in a group for cards or other games, participating in a group for arts and crafts, and participating in a social or discussion group.

A supplementary survey was conducted to augment the sample of handicapped individuals. Even with the augmented sample, however, the data generally are subject to high sampling error because the percent of disabled individuals who participated is very low for many of the listed activities, and the percent of disabled individuals with a particular condition is low for some of the listed conditions. For example, only 3.7% of handicapped individuals surveyed were mentally retarded and of these only 4.5% (1 respondent) played tennis during the pas. year. For such activity/condition combinations, a difference of 1 or 2 respondents more or less would make a very great difference in the participation and unsatisfied recreation interest percentages, so the percentages for such cases should be taken as being at best suggestive qualitative indicators rather than quantitative measures. The reader having been cautioned, the data on at least-once-a-year participation and unsatisfied recreation interest are presented and compared with the corresponding data for the population 5 and over and the population 65 and over.

The at-least-once-a-year recreation participation of disabled or handicapped individuals exceeds that of individuals 65 and over in 17 of the 19 activities in the original activity list. The exceptions are sightseeing or driving for pleasure and hunting or sport shooting.

The unsatisfied recreation interest of disabled or handicapped persons exceeds that of the elderly in basketball, baseball or softball, tennis, fishing, golf or miniature golf, football, hunting or sport shooting and ice skating.

TABLE 16

Presence of Disabled or Handicapped Persons in Pennsylvania Households, 1974

Condition	Households	Disabled individuals	
		Percent	Number in sample
Total	**100.0%**		
No disability present	*87.9*		
Disability present	*12.1*	*100.0*	*594*
Confined to a wheel chair	1.0	9.1	54
Required to use braces, crutches or a walker	1.9	16.3	97
Blind or nearly blind	1.7	15.3	91
Deaf or nearly deaf	1.7	15.0	89
Coordination disability such as palsy	1.3	10.8	64
Heart or lung disability which limits activity	7.1	49.8	296
Emotionally disturbed*	0.4	4.0	24
Mentally retarded*	0.5	3.7	22

* Responses for emotionally disturbed and mentally retarded individuals were provided by a household head knowledgeable about their recreation activities.

TABLE 17

Any Time During Year Participation, Population 5 and Over, 65 and Over, and Individuals with Selected Disabilities, Pennsylvania, 1974

(Percent of Persons)

Activity	Total population		Any listed disability	Wheel chair	Braces crutch walker	Blind or nearly Blind	Deaf or nearly Deaf	Coordination disab.	Heart lung disab.	Emotionally disturb.	Mentally retarded
	5 and over	65 and over									
Average	*30.5*	*7.7*	*11.3*	*6.7*	*9.7*	*8.7*	*10.8*	*12.1*	*10.9*	*14.4*	*21.5*
Bicycling	47.9	3.1	9.8	0.0	5.2	6.6	6.7	12.5	10.1	25.0	22.7
Swimming	66.7	11.7	20.5	7.4	16.5	14.3	21.3	26.6	17.6	29.2	63.6
Sightseeing or driving for pleasure	72.5	51.1	41.6	33.3	50.5	36.3	40.4	37.5	43.6	29.2	50.0
Basketball	22.2	0.0	4.2	3.7	1.0	4.4	4.5	6.2	2.0	4.2	18.2
Baseball or softball	32.4	1.1	5.1	1.9	2.1	4.4	2.2	7.8	3.7	8.3	27.3
Hiking or nature walks	40.9	11.6	13.6	1.9	8.2	12.1	14.6	6.2	14.2	25.0	27.3
Picnicking	70.6	35.3	36.0	31.5	36.1	27.5	39.3	35.9	35.5	37.5	77.3
Tennis	24.0	1.2	2.2	0.0	2.1	2.2	0.0	1.6	2.7	4.2	4.5
Fishing	31.9	8.4	10.8	3.7	4.1	9.9	11.2	12.5	11.8	12.5	27.3
Golf or miniature golf	29.0	5.1	6.2	3.7	3.1	4.4	4.5	9.4	6.1	4.2	9.1
Football	16.5	0.0	1.9	1.9	0.0	2.2	3.4	3.1	1.0	0.0	4.5
Off-road motorcycling or riding snowmobiles	12.0	0.3	2.7	0.0	2.1	1.1	4.5	4.7	2.4	4.2	0.0
Camping	26.3	3.8	8.1	0.0	6.2	5.5	10.1	9.4	6.8	16.7	22.7
Boating, canoeing or waterskiing	30.7	7.8	9.3	1.9	8.2	8.8	7.9	6.2	10.9	12.5	18.2
Hunting of sport shooting	14.0	5.1	4.7	0.0	2.1	3.3	6.7	4.7	5.7	0.0	4.5
Horseback riding	11.1	0.7	2.5	0.0	3.1	3.3	1.1	1.6	1.7	8.3	0.0
Ice skating	21.2	0.2	2.9	0.0	3.1	3.3	2.2	0.0	2.4	8.3	4.5
Street hockey	4.6	0.0	0.8	0.0	2.1	0.0	0.0	0.0	0.3	4.2	9.1
Snow skiing	4.9	0.0	0.5	0.0	1.0	2.2	0.0	0.0	0.0	0.0	0.0
Bowling	na	na	7.9	3.7	6.2	11.0	11.2	10.9	4.1	8.3	31.8
Visiting museums or zoos	na	na	15.7	14.8	13.4	11.0	10.1	15.6	16.9	25.0	22.7
Movies, plays, concerts	na	na	28.8	20.4	23.7	13.2	25.8	34.4	29.1	41.7	54.5
Attend live sporting events	na	na	15.5	11.1	12.4	18.7	15.7	15.6	15.2	8.3	18.2
Groups for cards, games	na	na	19.7	22.2	19.6	9.9	19.1	25.0	17.9	25.0	18.2
Groups for arts and crafts	na	na	6.4	3.7	9.3	2.2	2.2	7.8	5.7	20.8	18.2
Social or discussion groups	na	na	13.6	7.4	10.3	9.9	15.7	10.9	15.5	12.5	4.5

na: Not asked in main survey.

TABLE 18

Unsatisfied Recreation Interest, Population 5 and Over, 65 and Over, and Individuals with Selected Disabilities, Pennsylvania, 1974

(Interested nonparticipants as a percent of current participants)

Activity	Total population		Any listed disability	Wheel chair	Braces crutch walker	Blind or nearly blind	Deaf or nearly deaf	Coordination disab.	Heart lung disab.	Emotionally disturb.	Mentally retarded
	5 and over	65 and over									
Average	*24.2*	*15.3*	*15.7*	*24.5*	*11.9*	*16.9*	*20.0*	*15.3*	*17.7*	*17.8*	*8.1*
Bicycling	13.7	64.3	12.1	0.0	40.0	0.0	16.7	0.0	16.7	16.7	0.0
Swimming	4.6	21.7	16.4	25.0	12.5	46.2	26.3	5.9	19.2	14.3	14.3
Sightseeing or driving for pleasure	3.5	5.2	3.6	0.0	2.0	6.1	2.8	12.5	3.9	14.3	0.0
Basketball	19.5	0.0	16.0	0.0	100.0	0.0	25.0	25.0	16.7	100.0	25.0
Baseball or softball	11.8	10.0	20.0	0.0	50.0	25.0	50.0	20.0	18.2	50.0	0.0
Hiking or nature walks	17.7	17.1	8.6	0.0	0.0	0.0	7.7	25.0	11.9	0.0	0.0
Picnicking	4.5	5.0	4.9	5.9	2.9	12.0	5.7	8.7	6.7	0.0	0.0
Tennis	47.8	27.3	92.3	--	0.0	0.0	--	100.0	87.5	200.0	100.0
Fishing	28.6	30.3	31.3	150.0	75.0	11.1	30.0	37.5	22.9	66.7	16.7
Golf or miniature golf	25.9	23.9	32.4	100.0	66.7	25.0	50.0	16.7	38.9	100.0	0.0
Football	19.4	0.0	36.4	0.0	0.0	50.0	0.0	0.0	33.3	0.0	100.0
Off-road motorcycling or riding snowmobiles	76.8	133.3	56.3	0.0	100.0	100.0	0.0	33.3	71.4	0.0	0.0
Camping	53.3	47.1	12.5	0.0	16.7	0.0	0.0	16.7	20.0	0.0	0.0
Boating,canoeing or water skiing	13.9	41.4	21.8	100.0	25.0	12.5	28.6	50.0	9.4	33.3	0.0
Hunting or sport shooting	39.6	23.9	35.7	--	100.0	33.3	16.7	0.0	29.4	--	0.0
Horseback riding	145.1	100.0	86.7	0.0	33.3	66.7	300.0	100.0	140.0	50.0	0.0
Ice skating	40.9	0.0	23.5	0.0	33.3	33.3	0.0	0.0	28.6	0.0	0.0
Street hockey	37.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Snow skiing	194.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bowling	na	na	36.2	0.0	0.0	20.0	40.0	28.6	75.0	50.0	28.6
Visiting museums or zoos	na	na	20.4	12.5	15.4	20.0	55.6	20.0	24.0	0.0	0.0
Movies, plays, concerts	na	na	9.9	18.2	4.3	33.3	17.4	13.6	10.5	0.0	0.0
Attend live sporting events	na	na	20.7	50.0	16.7	17.6	28.6	30.0	22.2	0.0	0.0
Groups for cards, games	na	na	8.5	0.0	0.0	11.1	5.9	12.5	17.0	0.0	0.0
Groups for arts and crafts	na	na	39.5	200.0	11.1	50.0	100.0	40.0	47.1	0.0	0.0
Social or discussion groups	na	na	8.6	25.0	0.0	11.1	21.4	0.0	8.7	0.0	0.0

na: Not asked in main survey.

Densely populated urban areas

Across all 19 activities the total activity days per capita in the areas with population densities of 6,000 or more persons per square mile is 125.43 compared to 136.26 for the medium density places with 1,000-5,999 persons per square mile and 130.88 for the low density places.

TABLE 19

Activity Days Per Capity, 19 Activities, by Population Density, Pennsylvania, 1974

	Population 5 and over	Population density		
		Low: under 1,000 per sq. mile	Medium: 1,000 - 5,999 per sq. mile	High: 6,000 or more per sq. mile
All activities	*131.29*	*130.88*	*136.26*	*125.43*
Bicycling	30.49	30.47	32.72	27.74
Swimming	20.72	19.36	21.08	20.98
Sightseeing or pleasure driving	16.91	16.64	17.27	16.61
Basketball	8.74	6.39	8.79	9.87
Baseball or softball	7.84	7.23	7.90	8.08
Hiking or nature walks	7.44	11.61	7.43	5.36
Picnicking	6.13	5.60	6.64	5.77
Tennis	5.10	4.41	4.67	6.00
Fishing	4.68	5.28	4.97	4.03
Golf or miniature golf	3.85	3.05	3.90	4.21
Football	3.41	2.14	3.56	3.86
Off-road motorcycling or riding snowmobiles	3.01	4.29	3.76	1.43
Camping	2.86	2.85	3.27	2.35
Boating, canoeing or waterskiing	2.58	2.57	2.55	2.62
Hunting or sport shooting	2.23	3.48	2.55	1.20
Horseback riding	1.96	2.56	2.10	1.48
Ice skating	1.86	2.01	2.10	1.49
Street hockey	1.12	0.50	0.60	2.08
Snow skiing	0.36	0.45	0.40	0.26

The high density places have participation at least 10% above the statewide average in basketball, tennis, football, and street hockey, and at least 10% below, in hiking or nature walks, fishing, off-road motorcycling or riding snowmobiles, camping, hunting or sport shooting, horseback riding, ice skating, and snow skiing.

Unsatisfied recreation interest is greatest in the urban areas for 13 of the 19 activities, namely: sightseeing or driving for pleasure, hiking or nature walks, picnicking, tennis fishing, off-road motorcycling or riding snowmobiles, camping, boating, canoeing, or waterskiing, hunting or sport shooting, horseback riding, ice skating, street hockey, and snow skiing.

TABLE 20

Unsatisfied Recreation Interest, 19 Activities, by Population Density, Pennsylvania, 1974

(Interested nonparticipants as a percent of current participants)

	Low: under 1,000 per sq. mile	Medium: 1,000 - 5,999 per sq. mile	High: 6,000 or more per sq. mile
Byeling	11.8	14.6	13.7
Swimming	6.1	4.0	4.8
Sightseeing or driving for pleasure	2.4	3.6	3.8
Basketball	24.3	18.3	18.7
Baseball or softball	10.8	12.3	11.7
Hiking or nature walks	11.2	19.4	19.8
Picnicking	4.2	3.5	5.8
Tennis	45.7	46.7	50.3
Fishing	27.1	23.4	37.2
Golf or miniature golf	32.6	22.9	26.5
Football	25.4	14.1	23.2
Off-road motoreyeling or riding snowmobiles	52.4	58.5	164.3
Camping	39.5	41.5	83.8
Boating, canoeing or waterskiing	37.5	40.8	51.6
Hunting or sport shooting	29.4	27.7	80.4
Horseback riding	100.0	130.3	202.0
Ice skating	35.2	40.2	45.5
Street hockey	13.6	36.9	44.1
Snow skiing	150.5	197.8	227.8

ACTION RECOMMENDATIONS

The current recreation survey was not designed to test or compare the effectiveness of specific action alternatives in recreation planning. Indeed, no action proposals were formulated either prior to questionnaire design or subsequent to the interviewing and prior to the computer tabulation runs. However, in the massive amounts of data obtained certain patterns and interrelationships have emerged, and it is clear that action proposals to be considered must satisfy the minimum requirement of being consistent with these patterns and interrelationships. The evaluation of specific action proposals would require further research of substantially different design.

In what follows, several action proposals will be recommended. The proposals are not necessary consequences of the data. Rather, they are a set of plausible working hypotheses which are entirely consistent with the data. Certain of the recommendations result more from an intuitive understanding of the recreation picture than from the hard data itself. However, it is felt that the recommendations arise from an intuition which is extremely well informed as a result of sifting, studying, and analyzing was that a simple continuation of present approaches in recreation would not deal with the apparently highly intractable problems encountered. What follows is a view of recreation planning which represents an attempt to deal with the problems. It is not our purpose to outline a total recreation program or recreation plan but rather to suggest three premises for more effective recreation planning and specific types of actions which are consistent with the three premises.

Premise 1: Groups and Information--Recreation Software. Traditionally, consideration of recreation resources has included only tangible physical facilities and resources: numbers of tennis courts, miles of hiking trails, acres of game land, etc. However, there are also nonphysical factors which have major impact on recreation participation. Among these are the organizational know-how of individuals and groups, the patterns of interaction and organization within the community, public knowledge of available facilities and available means of access to facilities, well-designed and well-maintained data bases, etc.--in short, groups and information.

Groups and information are a major recreation resource. They should be recognized as such and should be as consciously and deliberately developed as are any physical facilities and resources. As with any physical recreation resource , means should be developed to measure the groups and information resource and to monitor its growth.

A fruitful analogy exists between recreation resources and the resources of computer technology. In computer technology, resources consist of hardware--physical computing machinery and devices--and also software--programs, systems of organization, and information. Hardware alone, while valuable, is ineffective unless coupled with software which is the result of thoughtful and imaginative development. Neither hardware nor software is of much use by itself. In the past, recreation planning has largely ignored the necessity for recreation "software".

Premise 2: Underutilized Mass Transit. Underutilized mass transit facilities constitute a latent recreation resource which can be pressed into service with virtually no additional investment and which is most available when recreation demand is greatest. Moreover, use of mass transit facilities when they would otherwise stand idle would benefit the mass transit systems themselves.

The survey data show that individuals in noncar-owning households are manifestly deprived of access to recreation. The deprivation among such individuals (many of whom are low-income, elderly, nonwhite, and/or inner-city residents) is so severe that making mass transit available to them for recreation outings could be expected to have a substantial impact on overall recreation participation.

An effective program of mass transit for recreation would rely heavily on the use of groups as facilitators and organizers of recreation--according to Premise 1. Groups would enable economical, efficient use of vehicles and would provide supervision and control of individuals en-route and at the recreation site. Conversely, an effective program of mass transit for recreation would stimulate and support expansion of the role of groups in organizing and facilitating recreation activity.

An effective program of mass transit for recreation would also rely heavily on increased dissemination of information about available facilities and available means of access to facilities--see Premise 1. A successful campaign to increase public awareness of available recreation opportunities would increase the demand for group outings, thereby providing support for the usage of mass transit for recreation.

Premise 3: More Equal Access. The State should adopt an explicitly enunciated policy of working toward equal access to recreation among all segments of the citizenry. The State has long recognized the need for more equal access, and it should now move to implement what must become an explicit, consciously pursued policy.

First, data on recreation activity must be analyzed expressly for the purpose of detecting inequalities in access to recreation. The current survey has begun to make such analysis possible. Second, proposals for expanded recreation facilities and programs must be examined to determine their differential impact on different segments of the population. Planners should ask whether the proposed expansions will effectively reduce inequalities in access to recreation. The supply accessibility phase of the demand projections system points the way to a working model for such examination of proposals. Consideration of access deficiencies should also enter actively into shaping of the proposals themselves. Finally, the technical capability must be developed for ongoing statistical monitoring and evaluation of access to recreation.

A key to overcoming recreational deprivation on the part of disadvantaged segments of the population lies in stimulating and supporting expansion of the role of groups as facilitators and organizers or recreation. Groups enable outings at reduced cost. Groups provide the financial and organizational capacity to hire buses, reserve sites, advertise coming events, investigate available facilities, and so on. Groups make it possible for seriously

disabled individuals to participate. Groups provide for supervision and control of individuals in transit and at the site. A person who might otherwise be reluctant to venture out to some remote site or to try a new activity would be encouraged by the security of being part of a group. Groups make it possible for people who live alone and have no means of transportation to participate. And many activities are simply more enjoyable when participated in with a group.

State recreation data base

The current survey, the associated facilities inventory, and the recreation demand projections which utilize both the survey and the facilities inventory will come to constitute a planning instrument of considerable power. They are a major data resource superior in current and potential effectiveness to the data resources possessed by other states or those which underlay prior Pennsylvania recreation plans. However, substantial expansion and refinement are needed. Even though current data resources are of far greater quality and scope of the demand side than on the supply side, it is on the demand side that the greatest need for expansion exists. The need for refinement and redesign is greatest on the supply side.

Demand side expansion should encompass several areas: increased scope and detail of activity lists, added attention to the needs of special population segments, and expanded consideration of activity-specific detail, particularly of the role of groups in recreation.

Increased scope and detail of activity lists is desirable for several reasons. First, a list of recreation activities is implicitly a set of recreation priorities. Activities excluded from a list tend to be excluded from consideration in recreation planning. Second, an activity list which is too short or is poorly chosen will necessarily exclude certain segments of the population from planning consideration. For example, the list of 19 activities chosen for the current survey, for the most part, does not include sedentary or indoor activities, and consequently the survey results do not provide adequate coverage of the recreation needs of the elderly and the handicapped. Third, activity lists should be augmented to include more activities which are participated in locally and are not automobile-dependent. In the past, recreation studies have tended to focus on outings and outing-type activities. with the result that outdoor games and sports of the kind that are participated in locally have been grossly underrepresented. The current survey has gone a long way toward correcting the outing-oriented bias, but there is still room for improvement. Activities such as park-sitting, walking for pleasure, and using playground equipment, for example, are also worthy of quantification.

Added attention to the needs of special population segments is required to enable planning which can effectively reduce the recreational deprivation of disadvantaged segments of the population. The current survey has served to detect and identify particular disadvantaged segments. Future studies should include components designed specifically for the purpose of investigating the nature and extent of recreational deprivation.

Expanded consideration of activity-specific detail is required particularly in connection with measuring and detailing the role of groups in facilitating and stimulating recreation participation. Efforts to obtain current measures of the effectiveness of groups and to monitor progress and growth in this area must be an integral part of any program which seeks to stimulate and support expansion of the role of groups in recreation.

In the past, activity lists and the detail obtained for each activity have been constrained by the requirement that interviews be kept at a reasonable length. However, it would be possible to use an expanded activity list and still keep a manageable interview length. One can rotate among sets of activities or sample randomly among individual activities so that each respondent would be questioned only on a subset of the activity list. A composite picture for the whole population can then be assembled by computer.

On the supply side, the facilities inventory needs to be substantially revamped and redesigned. Design of the questionnaire instrument to be used should be governed by considerations of clarity and ease of execution rather than ease of keypunching. Such considerations of questionnaire design are particularly crucial when the questionnaire forms are to be executed by persons other than professional interviewers.

More systematic collection of data relating to recreation operations is needed; for example, surveys of:

voluntary agencies, organizations and groups
park managers
concessionaires.

Such surveys should be specific to each universe.

Both on-site user surveys and local telephone surveys should be employed to a greater degree to aid in project planning.

As a general comment on recreation data and data systems there should be more emphasis on scientific surveying and sampling. Better designed questionnaires and information schedules and better research designs and sample designs are needed. Where resources are limited, samples can be limited in size. In general, censuses should be avoided, and resources put into better design and analysis. Catch-as-catch-can data collection may produce highly biased pictures.

The initial emphasis should be on obtaining a greater breadth and depth of information rather than on installing on-going, permanent data systems. Initially, updating should be done with special purpose surveys as needed. It may also be noted that the level of funding required will be substantially larger than that for the traditional state recreation plan.

Demand side actions

Following is a list of proposed demand side actions to stimulate recreation participation. The list is not intended to be either exhaustive or detailed, but rather to amplify and clarify by example the three premises stated above.

1. A program of recreation stamps for the elderly. The program could permit the stamps to be freely spent or it could require that they be redeemed only by approved or registered recreation facilitators, such as voluntary agencies, groups, or organizations. The latter approach would stimulate the development of group-facilitated recreation activity, which is a key to increased participation by recreationally deprived segments of the population.

   Among the elderly, recreation participation rates are greatly reduced, but the levels of unsatisfied recreation interest are lowered as well. It is felt that elderly persons have accommodated their recreation aspirations to the difficulties of their situation and the lack of recreation opportunities available to them.

   It is apparent from the survey data that several subgroups of the population are currently being deprived of access to recreation participation. For certain subgroups, such as individuals in noncar-owning households, the level of deprivation is considerably more severe than it is for the elderly. There are two reasons, however, for recommending that a stamp program be directed specifically to the elderly. First, since the elderly comprise a readily identifiable subgroup for which various kinds of public programs are already in existence, a stamp program for the elderly would be relatively more easy to organize and manage. Second, a program of recreation stamps for the elderly may be viewed as a natural extension of the current program which provides free use of mass transit facilities by the elderly during off-peak hours.

   The stamp program is seen as catalyst rather than fuel for expansion and equalization of recreation participation. Not only the elderly would benefit. Groups would be stimulated to develop programs and know-how which would then benefit other disadvantaged segments of the population, particularly

the handicapped. The isolation of the elderly would be reduced and they would become valued and sought after. Since car ownership is low among the elderly, transportation arrangements would have to be made for them. Such arrangements would tend to stimulate the general use of mass transit in recreation.

It should be pointed out that while the idea of a program of recreation stamps for the elderly arises out of relationships observed in the survey data, the survey was not designed to directly evaluate the potential effectiveness of such a program.

2. Advertising, publicity, and information programs designed to:

   a. Publicize and promote the use of state parks and game lands.
   b. Help agencies, organizations, and groups design, organize, and manage recreational events and programs, both activity and program oriented; e.g., how to organize a bus sightseeing trip and picnic, or how to form a theater group designed to perform for the elderly.
   c. Stimulate and support inter-agency communication among:

      transit companies
      county and municipal recreation departments and park commissions
      city, county, and regional planning commissions
      voluntary agencies, community organizations and groups
      local newspapers
      school administrators and school boards.

   d. Support an expanded role for concessionaires and support the demand for their services, e.g., rental of bicycles and adult tricycles for the elderly and handicapped, camping gear, fishing equipment, horseback riding. Concessionaires might rent certain types of equipment to registered groups only, or have special rates to groups.
   e. Promote increased rental of equipment at the trip origin point through city recreation departments or commercial dealers. Here also, groups might get special privileges and rates.
   f. Support bus service to the interior of large recreation facilities.
   g. Support revised transportation and recreation policies and improved recreation data bases on the part of the Federal government and nearby state governments.
   h. Promote fuller use of school facilities, particularly indoors, by groups or organizations. Here also, a group certification process would increase the security of schools.

3. Special license and fee arrangements, e.g., for-the-day fishing licenses and discounts to groups traveling by bus or van, with reciprocal arrangements with bordering states.

4. Maintain a photographic file coded to road location which can be used to help in scenic tour and outing design and promotion, and equipment sales and rental. A computerized microfilm information system would be useful to transit companies, recreation directors, and groups. Trips could be "produced" with photographic exhibits which satisfy certain parameters, e.g., origin location, time and cost limitations, destination facilities required.

Supply side actions

The survey data file and the data file under development in connection with the demand projections provide a basis for evaluating the impact of alternative projects. For example, the effect on participation of one large facility at a single location could be compared with the effect of several smaller facilities at various locations. The principal recommendation here is to make use of this capability. Therefore relatively few specific supply recommendations are presented.

1. Support programs and projects which are designed to increase the accessibility and capacity for swimming and picnicking. This means a bias towards smaller facilities at more numerous locations.

2. The number of activity days under crowded conditions for tennis is nearly equal to that for swimming, so that an expansion in tennis capacity is indicated also.

3. More signing in support of sightseeing, at locations tied into the photographic file. Sightseeing is particularly important to the elderly.

4. Selective signing and interim shoulder paving in support of at-destination scenic recreational bicycling and tricycling.

5. Legislation to permit higher prices per acre to be paid and smaller sites to be purchased for development in or near metropolitan areas, which are relatively deprived of recreation facilities, according to an approved measure taking account of both recreational supply and accessibility.

APPENDIX: SAMPLE DESIGN

The Pennsylvania Recreation Survey was administered by telephone, and the sample was drawn from residential listings in telephone directories. As a result, only households with telephones and with listed telephone numbers were included in the sample, so that there is a bias against low and very high income households and against women living alone in metropolitan areas. The composition of the sample with respect to sex and age is reasonably close to the 1970 census distributions, as is shown in Table 21. The sample is also biased toward white and better-educated individuals and toward car-owning households.

The drawing of the sample began with the assembling of telephone directories for the entire State of Pennsylvania, more than 160 directories in all. In many cases telephone directories were duplicated under different covers with different yellow pages. Directories were examined initially to detect such duplications and eliminate duplicates where possible. After duplicates were weeded out, some 93 directories remained.

Estimates of the total number of listings were required for each directory. The estimates were obtained by systematically sampling columns of listings in each directory, counting the number of listings in each sample column, and multiplying by the number of columns per page and the number of whole pages to obtain the estimated number of listings per directory. A uniform sampling fraction of .0093758 was applied to each directory to obtain the number of listings to be selected initially from the directory.

Listings were selected in clusters. The size of cluster selected depended on the way in which the directory was organized. Some directories were organized alphabetically by the name of the telephone subscriber. In such directories, the listings were thoroughly mixed with respect to telephone exchange and geographical location, so that large clusters containing 50 listings each could be selected without distorting the geographical representation. Other directories, however, were organized by locality or telephone exchange. For such directories it was necessary to restrict cluster lengths to only 8 listings in order to insure better geographical representation. Still other directories, which were organized by groups of localities and had, therefore, some geographical stratification but not as much as exchange-organized directories, were allowed to have a compromise cluster length of 25 listings. A total of 2,181 clusters were selected.

TABLE 21

Population and Household Characteristics 1970 Census and 1974 Pennsylvania Recreation Survey

	1970 Census	1974 Pennsylvania Recreation Survey
Population 5 and over	*100.0*	*100.0*
Sex:		
Male	47.8	46.7
Female	52.2	53.3
Race:		
White	91.3	95.3
Nonwhite	8.7	4.7
Education, population 25 and over:		
Less than 9 years	29.1	13.0
9 - 11 years	20.6	15.9
12 years	34.5	45.9
Some college	7.0	12.1
College graduates	8.8	13.1
Age:		
5 to 9 years	10.0	7.9
10 to 14 years	10.8	9.7
15 to 19 years	10.0	9.9
20 to 24 years	7.7	8.5
25 to 29 years	6.5	7.3
30 to 34 years	5.6	6.2
35 to 44 years	12.6	14.6
45 to 54 years	13.9	14.2
55 to 64 years	11.2	11.3
65 to 74 years	7.3	7.5
75 years or older	4.4	2.9
Car ownership of households:		
Own car	80.1	93.7
Do not own car	19.9	6.3
Income of households:		
Less than $4,000	26.2	11.3
$4,000 to $6,999	17.2	14.2
$7,000 to $9,999	20.3	26.7
$10,000 to $14,999	22.1	25.6
$15,000 to $24,999	11.1	16.8
$25,000 and over	3.1	5.4

The number of listings to be selected from a directory was divided by the chosen cluster length for the directory to determine the number of clusters to be selected. A sampling interval within the directory was then determined and clusters were selected systematically. Clusters were examined to detect obviously nonresidential listings, which were eliminated.

The remaining residential listings were then keypunched onto punch cards along with their area code and directory number. In many cases, telephone exchanges appeared in more than one directory, even after duplicate directories had been eliminated. To prevent such exchanges from being overrepresented because they appeared in more than one directory, the punch card file was examined by computer. For each telephone exchange, the number of directories in which the exchange appeared was determined. If an exchange appeared in three directories, for example, then only every third listing in that exchange was taken. At the same time that exchanges were checked for duplications, listings themselves were checked for duplication and duplicates were eliminated. 38,336 telephone listings were input to the process. Of these, 264 listings were found to be duplicates and were eliminated. After selection of listings to compensate for duplicate exchanges, 29,468 sample listings remained. The total number of telephone exchanges actually appearing in the sample of completed interviews is 912.

The 29,468 sample listings were arranged in subsamples of 100 listings each in such a way that each subsample is representative of the State as a whole. It was not known at the outset what fraction of the 29,468 listings would be required to obtain the number of interviews needed. Through the device of dividing the sample into representative subsamples, however, it was possible to proceed through the subsamples and simply stop when the desired number of interviews had been obtained and still have a representative sample at any stopping point.

Since the sample was stratified by area code and exchange, the reduction in sampling error associated with the fine geographical stratification greatly outweighs the increase in sampling error attributable to clustering. Therefore, estimates of sampling error based on simple random sampling tend to overstate the sampling error.

The following formula, therefore, presents high side estimates of the sampling error of survey percentages:

$$\bar{o}_{p'} = \sqrt{\frac{p(1-p)}{n-1}} \quad \text{where}$$

$\bar{o}_{p'}$ = sampling error of a survey proportion

p = the survey proportion

n = the sample count on which the survey proportion is based.

TABLE 22

Sampling Errors (One Sigma) in Percentage Points

	Survey percentage					
Base of percentage	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
20	5.0	6.9	9.2	10.5	11.2	11.5
50	3.1	4.3	5.7	6.5	7.0	7.1
100	2.2	3.1	4.0	4.6	4.9	5.0
200	1.5	2.1	2.8	3.2	3.5	3.5
400	1.1	1.5	2.0	2.3	2.5	2.5
1,000	0.7	0.9	1.3	1.4	1.5	1.6
2,000	0.5	0.7	0.9	1.0	1.1	1.1
3,000	0.4	0.5	0.7	0.8	0.9	0.9

The above table is used as follows: select the row with the respondent count approximately equal to the base of the percentage; pick a column corresponding to the survey percentage. The figure in the cell corresponds to the one sigma error range above or below the percentage in the column head. The probability is approximately 68 in 100 that the true percentage will fall within plus or minus one sigma of the survey percentage, and 95 in 100, within two sigma.

Thus, for example, a survey proportion of 40% based upon a sample of 100 respondents may be expected to represent a true figure between 35.1% and 44.9% in 68 cases out of 100.

A minimum of 4 calls were made to each telephone number used before dropping it because of inability to make contact. In the process of counting the 4 calls, busy signals represented 1/3 of a call. In this way, a bias toward respondents who were at home and used their phones less was reduced. Having contacted a household, at least 3 additional calls were made, if necessary, to reach a specific individual designated for interview. Times and days of calls were noted so that interviewers could choose times to call back when they were most likely to be successful.

The household interview consisted of two parts, a recreation participation part and a household characteristics part. The individual in the household selected for interview with respect to recreation participation was selected at random from all household members 5 or more years old. For each telephone listing, interviewers were provided with a different set of random numbers which designated the individual to be interviewed for each possible household size. If the individual selected was incapable of being interviewed by virtue of deafness or some other condition, e.g., mentally retarded, an adult member of the household who was knowledgeable about the subject's recreation participation was allowed to speak for the subject. Moreover, if the subject of the interview was between the ages of 5 and 10, an adult was allowed to speak for the subject

A head of household was interviewed for the household characteristics part of the household interview. Frequently, obtaining this information required that a household be contacted again to reach a head of household. Because of the length of the interview itself and because normally more than one person in the household would have to be contacted, the opportunity for refusal at some point along the line was increased. Refusals at all stages of the interview process constituted 32% of the total of completed interviews plus refusals.

SAMPLE QUESTIONNAIRE

Questionnaire No. _____ -0 ___ 1-5(01)

HC ID HD DQ R NE _____ 8

Interviewer _____ Telephone No. _____ AE9-12

Date Completed _____ Sample No. _____ Line No. _____ S13-15

OUTDOOR RECREATION SURVEY

INTRODUCTION: Good morning/afternoon/evening. My name is Ms./Mr. _____ .

The Office of State Planning and Development is conducting a telephone survey across Pennsylvania that will be used by the State in planning for better public recreation facilities.

Are you a head of this household?

(IF YES -- GO TO QUESTION 1.)

(IF NO) May I please speak with a head of the household?

(REREAD INTRODUCTION TO HEAD OF HOUSEHOLD. GO TO QUESTION 1. IF NO HEAD OF HOUSEHOLD IS AVAILABLE, ASK WHEN WOULD BE A GOOD TIME TO CALL BACK AND TERMINATE CALL).

1. Including yourself, how many members of this household now live at home?

1 2 3 4 5 6 7 8 9 10 or more -x 16

2. In order from the oldest to the youngest, please tell me the age and sex of each household member who is now living at home.

Age (Write In)	Office Use	Sex M	Sex F	Household head(s)	Subject of Interview	
_____	_____	1	2	H	1	
_____	_____	1	2	H	2	AH 17
_____	_____	1	2	H	3	AS 18
_____	_____	1	2	H	4	SS 19
_____	_____	1	2	H	5	
_____	_____	1	2	H	6	
_____	_____	1	2	H	7	
_____	_____	1	2	H	8	
_____	_____	1	2	H	9	
_____	_____	1	2	H	10	

Who is the principal head of this household? (INDICATE PRINCIPAL HEAD BY CIRCLING "H" CODE. INDICATE SECONDARY HEAD BY UNDERLINING "H" CODE.)

DETERMINE SUBJECT OF INTERVIEW USING SELECTOR NUMBERS IN SAMPLE LISTING, BASED ON THE NUMBER OF HOUSEHOLD MEMBERS 5 OR MORE YEARS OLD. CIRCLE SUBJECT'S NUMBER.

IF SUBJECT OF INTERVIEW IS 10 OR MORE YEARS OLD, ASK TO SPEAK TO SUBJECT. REREAD INTRODUCTION TO SUBJECT, GO TO QUESTION 3.

IF SUBJECT OF INTERVIEW IS NOT AT HOME, MAKE APPOINTMENT FOR CALL-BACK, AND TERMINATE CALL.

IF SUBJECT OF INTERVIEW IS LESS THAN 10 YEARS OLD OR IS UNABLE TO ANSWER FOR HIMSELF - - e.g., deaf, dumb, etc. - - CONTINUE INTERVIEW WITH A HEAD OF HOUSEHOLD.

READ: I would like to ask about the recreation activities of (SUBJECT).
What is (his/her) name?

GO TO QUESTION 3. READ QUESTIONS USING SUBJECT'S NAME.

Subject's name _____

3. This past Saturday or Sunday did (you/subject's name):

(READ LIST, ONE AT A TIME - - CIRCLE CODE(S).)

-1 visit a museum or zoo,
-2 attend a cultural event or concert, or
-3 attend a live amateur or professional sporting event?

-0 NONE OF THESE.

4. I am going to read you a short list of recreation activities. Please think back to the most recent Sunday when you had good weather. Please tell me whether or not (you/subject's name) did any of these activities on that Sunday.

(READ LIST, ONE ACTIVITY AT A TIME:

"Did (you/subject's name) ACTIVITY ?")

(IF YES) Was that in Pennsylvania?

5. (MARK SUNDAY ACTIVITIES "YES" FOR Q5. FOR ACTIVITIES NOT MARKED "YES" ASK:)

Once again I am going to read you a short list of recreation activities. This time as I read them I would like you to think back over the past year, that is the period between now and this time last year. Please tell me whether or not (you/subject's name) ever did any of these activities during that time.

(READ LIST, ONE ACTIVITY AT A TIME:

"Did (you/subject's name) ACTIVITY ?")

6. Among the activities which (you/subject's name) did in the past year, are there any which (you/subject's name) had never done before the past year?

(IF YES) Which activities?

7. (READ FOR EACH ACTIVITY NOT MARKED "YES" FOR Q4, or 5.)

(Are you/do you think subject's name is) at all interested in (going/playing) ACTIVITY ?

(IF YES) What has prevented (you/subject's name) from ACTIVITY ?

8. Among the activities which (you/subject's name) did not do in the past year, are there any which (you/subject's name) definitely (plan/plans) to do in the coming year?

(IF YES) Which activities?

9. (READ FOR EACH ACTIVITY MARKED "YES" FOR Q4, or 5.)

On how many different days during the past year did (you/subject's name) ACTIVITY ?

(IF RESPONDENT DID ACTIVITY SO MANY TIMES HE HAS TROUBLE ESTIMATING:

You don't have to give me a number. For example, if (you/subject's name) went swimming every day of a two-week vacation, you can just tell me that. About _____ days then? Or does that sound too high or too low?

(Were you/Was subject's name) always in Pennsylvania when (you/subject's name) ACTIVITY ?

(IF NO) On how many different days did (you/subject's name) ACTIVITY in Penna.?

(FOR SWIMMING, TENNIS, BASKETBALL, AND ICE SKATING ONLY - -

Did (you/subject's name) ACTIVITY indoors at all? (IF YES) On how many different days did (you/subject's name) ACTIVITY indoors?

YrD _____ PaD _____ IndD _____

16-18 19 20-22 23 24-26 27

5,6

C02	Swimming	C07	Tennis	C12	Street hockey	C17	Motorcycles or snowmobiles
C03	Picnicking	C08	Golf	C13	Bicycling	C18	Sightseeing or driving for pleasure
C04	Boating	C09	Basketball	C14	Horseback riding		
C05	Fishing	C10	Baseball	C15	Hiking	C19	Snow skiing
C06	Hunting	C11	Football	C16	Camping	C20	Ice skating

10. Now, please think about the most recent time (you/subject's name) ACTIVITY .

a. Was that in Pennsylvania? -1 Yes -0 No 28

b. Was that on a holiday weekend, regular weekend, or regular week day?

-1 Hol. WE -2 Reg. WE -3 Reg. WD 29

c. Was that on a vacation, overnight trip, all-day outing, or a time when (you/subject's name) had no more than a few hours available?

-1 Vacation -2 Overnight -3 All-day -4 Few hours 30

BICYCLING ONLY - - Did (you/subject's name) ride the bicycle from home?

-1 Yes (GO TO NEXT ACTIVITY) -0 No 31

SIGHTSEEING AND DRIVING FOR PLEASURE - - GO TO NEXT ACTIVITY

d. What kind of place was that? _____ 32-35

BOATING ONLY - - Was that in a canoe or raft? -1 Yes -0 No 36

(IF NOT A PUBLIC FACILITY) Is there a public tax-supported facility in your area where (you/subject's name) can ACTIVITY ?

-1 Yes -0 No (SKIP TO e.) -2 DK (SKIP TO e.) 37

(IF YES) Why didn't (you/subject's name) go there?

_____ 38-39

(IF ACTIVITY WAS DONE IN RESPONDENT'S OWN BACKYARD, GO TO NEXT ACTIVITY.)

e. When (you/subject's name) ACTIVITY (were you/was subject's name) inconvenienced or bothered by over-crowding? -1 Yes -0 No 40

f. What means of transportation did (you/subject's name) use to get from home to the place where (you/subject's name) ACTIVITY ? _____ 41

g. How long did it take to get from home to the place where (you/subject's name) ACTIVITY ?
_____ (IF 10 MIN. OR LESS, SKIP TO i.) 42

h. If the place where (you/subject's name) ACTIVITY were only half as far away as it actually is, (would you/do you think subject's name would) ACTIVITY

-1 Much more often -2 Slightly more often -3 About as often as now -4 (less) 43

i. Is there anyplace closer to home where (you/subject's name) could have ACTIVITY ?

-1 Yes -0 No (SKIP TO j.) -2 DK (SKIP TO j.) 44

(IF YES) What kind of place for ACTIVITY is closest to home?

_____ 45-48

How long does it take to get there? _____ 49

Why didn't (you/subject's name) go there? _____ 50-51

j. (IF DIDN'T USE PUBLIC TRANSPORTATION IN f.)

Is there public transportation available to the place where (you/subject's name) ACTIVITY ?

-1 Yes -0 No -2 DK 52

(IF YES) What prevented (you/subject's name) from using it?

_____ 53-54

(IF NO or DK) If public transportation were made available, would (you/subject's name) use it?

-1 Yes -0 No 55

(IF YES) If public transportation were made available (would you/do you think subject's name would) ACTIVITY 56

-1 Much more often -2 Slightly more often -3 About as often as now
-4 (Less)

GO TO NEXT ACTIVITY OR BACK TO Q11 IN MAIN QUESTIONNAIRE

11. Are the outdoor recreational facilities at the public school nearest to your home available to the public after school-hours and during the summer?

-1 Available -2 Not available -3 Don't know

(IF AVAILABLE) (Do you/Does subject's name) use these facilities?

-4 Yes -5 No

(IF NOT AVAILABLE) If they were made available to the public (would you/do you think subject's name would) use these facilities?

-6 Yes -7 No 52

(REMAINDER OF INTERVIEW IS FOR A HEAD OF HOUSEHOLD. IF RESPONDENT IS NOT A HEAD OF HOUSEHOLD, ASK TO SPEAK TO A HEAD OF HOUSEHOLD. IF NEEDED, REREAD INTRODUCTION. IF NO HOUSEHOLD HEAD IS AVAILABLE, MAKE AN APPOINTMENT TO CALL BACK AND TERMINATE THE CALL.)

12. Recreation improvements can be in the form of improved physical facilities, expanded recreation programs, better equipment, increased supervision, and so on.

Thinking now about the public schoolyard nearest to your home, what specific changes or improvements would you like to see to make the schoolyard more suitable for recreation?

_____ 53
_____
_____ 54
_____

13. Now, for the nearest small neighborhood park that you know of, what specific changes or improvements would you like to see?

_____ 55
_____
_____ 56
_____

14. What specific changes or improvements would you like to see in the nearest larger county or municipal park that you know of?

_____ 57
_____
_____ 58
_____

15. What specific changes or improvements would you like to see in the nearest state park that you know of?

_____ 59
_____
_____ 60
_____

READ: Different kinds of families have different recreation needs. So that we can learn mone about how recreation needs differ, we would like to ask some questions about you and your family.

16. Do you or does anyone now living there have a car?

-1 Yes (SKIP TO Q17) - No

(IF NO) Do you have a camper or a truck that you use like a car?

-2 Yes -0 No (SKIP TO Q18) 61

17. (IF YES FROM Q16) As you know, there have been recent increases in gasoline prices. These increases may have affected your travel and recreation, in terms of how often and how far you drive. Do you use the (car/camper/truck) in connection with recreation

-1 much less, -2 slightly less, or -3 about the same 62
compared to before gasoline prices went up?

18. In total, how many full-sized 2-wheel bicycles are owned by members of your household who are now living there? _____ 63

(IF ONE OR MORE)

How many of these bicycles were acquired within the past 12 months? _____ 64

19. (ASK IN REFERENCE TO SUBJECT OF INTERVIEW.)

In (your/subject's) formal education, what is the highest grade or year (you have/ subject's name has) completed? _____ 65

20. (ASK IF SUBJECT OF INTERVIEW IS NOT THE PRINCIPAL HEAD OF HOUSEHOLD.)

In (his/her) formal education, what is the highest grade or year the principal head of the household has completed? _____ 66

21. (ASK IN REFERENCE TO SUBJECT OF INTERVIEW.)

(Are you/Is subject's name) presently employed?

(IF EMPLOYED) Is that full-time or part-time?

-1 Full-time -2 Part-time

(IF NOT EMPLOYED) (Are you/Is subject's name) out of work, retired, a student, or a housewife?

-3 Out of work -4 Retired -5 Student -6 Housewife -7 Disabled 67

22. (ASK IF SUBJECT OF INTERVIEW IS NOT PRINCIPAL HEAD OF HOUSEHOLD.)

Is the principal head of the household presently employed?

(IF EMPLOYED) Is that full-time or part-time?

-1 Full-time -2 Part-time

(IF NOT EMPLOYED) Is the principal head of the household out of work, retired, a student, or a housewife?

-3 Out of work -4 Retired -5 Student -6 Housewife -7 Disabled 68

23. In what county are you located? _____ 69-70

24. It is very important for us to find out how well public recreation programs serve families at different income levels.

Is your approximate total family income between $7,000 and $10,000, or is it higher or lower?

(LOWER) Is it higher or lower than $4,000?
(LOWER = Less than $4,000)
(HIGHER = $4,000 - $6,999)
(HIGHER) Is it higher or lower than $15,000?
(LOWER = $10,000 - 14,999)
(HIGHER) Is it higher or lower than $25,000?
(LOWER = $15,000 - 24,999)
(HIGHER = $25,000 and over)

CIRCLE CODE:
-0 Less than $4,000
-1 $4,000 - 6,999
-2 7,000 - 9,999
-3 10,000 - 14,999
-4 15,000 - 24,999
-5 25,000 and over
-6 Refused, not available 71

25. What is your race? -1 White -2 Black -3 Other 72

26. Many people have physical or health conditions which may affect their day-to-day activities. Have you, or has anyone living home with you, had any of the following conditions for at least a year?

a. Is anyone confined to a wheelchair? -1 Yes - No

b. Is anyone required to use braces, crutches, or a walker? -2 Yes - No

c. Is anyone blind or nearly blind? -3 Yes - No

d. Is anyone deaf or nearly deaf? -4 Yes - No

e. Does anyone have a coordination disability such as palsy? -5 Yes - No

f. Does anyone have a heart or lung disability which limits their activity? -6 Yes - No

g. Is anyone emotionally disturbed? -7 Yes - No

h. Is anyone mentally retarded? -8 Yes - No 73

(IF ALL RESPONSES ARE "NO", THE INTERVIEW IS FINISHED. THANK RESPONDENT AND TERMINATE CALL.)

27. (READ FOR EACH "YES" CONDITION IN Q26.)

What is the age and sex of the household member who CONDITION ?

Condition(s) (WRITE LETTER)	Age (WRITE IN)	Office Use	Sex M	F
_____	_____	_____	1	2
_____	_____	_____	1	2
_____	_____	_____	1	2
_____	_____	_____	1	2
_____	_____	_____	1	2
_____	_____	_____	1	2

(ADMINISTER SERIES OF "DISABLED" QUESTIONS FOR EACH HOUSEHOLD MEMBER IDENTIFIED IN Q27 WHO IS 5 OR MORE YEARS OLD. IF MORE THAN ONE HOUSEHOLD MEMBER IS DISABLED, INTERVIEW FOR EACH OF THEM, ONE AT A TIME. IF DISABLED RESPONDENT IS LESS THAN 10 YEARS OLD OR IS UNABLE TO ANSWER FOR HIMSELF, A HEAD OF HOUSEHOLD MAY ANSWER FOR HIM.)

No. of activity sheets _____ 74-75

ANSWER SHEET FOR QUESTIONS 4 THRU 9

	Q4		Q5	Q6	Q7			Q8	Q9		
	C21 Sun. Yes	c22 Sun. Pa.	c23 Yr. Yes	c24 1st Yr.	c25 Int.	What prevented		c34 Plan	Yr. Days	Pa. Days	Indoor Days
Swimming	-2	-2	-2	-2	-2	26	Swimming	-2	C02		
Picnicking	-3	-3	-3	-3	-3	27	Picnicking	-3	C03		
Boating, canoeing, or Waterskiing	-4	-4	-4	-4	-4	28	Boating	-4	C04		
Fishing	-5	-5	-5	-5	-5	29	Fishing	-5	C05		
Hunting or sport-shooting	-6	-6	-6	-6	-6	30	Hunting	-6	C06		
Tennis	-7	-7	-7	-7	-7	31	Tennis	-7	C07		
Golf or miniature golf	-8	-8	-8	-8	-8	32	Golf	-8	C08		
Basketball	-9	-9	-9	-9	-9	33	Basketball	-9	C09		

	Q4		Q5	Q6	Q7			Q8	Q9		
	c35 Sun. Yes	c36 Sun. Pa.	c37 Yr. Yes	c38 1st Yr.	c39 Int.	What prevented		c51 Plan	Yr. Days	Pa. Days	Indoor Days
Baseball or softball	-0	-0	-0	-0	-0	40	Baseball	-0	C10		
Football	-1	-1	-1	-1	-1	41	Football	-1	C11		
Street hockey	-2	-2	-2	-2	-2	42	St. hockey	-2	C12		
Bicycling	-3	-3	-3	-3	-3	43	Bicycling	-3	C13		
Horseback riding	-4	-4	-4	-4	-4	44	Horseback	-4	C14		
Hiking or nature walks	-5	-5	-5	-5	-5	45	Hiking	-5	C15		
Camping	-6	-6	-6	-6	-6	46	Camping	-6	C16		
Off-road motorcycling (or riding snowmobiles)	-7	-7	-7	-7	-7	47	Motorcycling	-7	C17		
Sightseeing or driving for pleasure	-8	-8	-8	-8	-8	48	Sightseeing	-8	C18		
Snow skiing	-9	-9	-9	-9	-9	49	Skiing	-9	C19		
Ice Skating	-x	-x	-x	-x	-x	50	Skating	-x	C20		

OUTDOOR RECREATION SURVEY:
DISABILITY SUPPLEMENT
QUESTIONS FOR DISABLED PERSONS

Questionnaire No. _____ 1-5(02)

Telephone No. _____ AE9-12

Sample No. _____ Line No. _____ S13-15

CIRCLE CODE(S) FOR DISABILITY CONDITION(S)

-1 Confined to wheelchair
-2 Required to use braces, crutches, or a walker
-3 Blind or nearly blind
-4 Deaf or nearly deaf
-5 Coordination disability, such as palsy
-6 Heart or lung disability which limits activity
-7 Emotionally disturbed
-8 Mentally retarded

Interviewer _____

Date Completed _____

Subject's age: _____ 16

Subject's sex: -1M -2F 17

C18

(IF RESPONDENT IS NOT SOMEONE YOU HAVE ALREADY BEEN INTERVIEWING, READ:

The Office of State Planning and Development is conducting a telephone survey across Pennsylvania that will be used by the State in planning for better recreation facilities.)

D1. We are particularly interested in the recreation needs of people with physical or other disabilities. I am going to read you a short list of recreation activities. As I read them I would like you to think back over the past year, that is the period between now and this time last year. Please tell me whether or not (you/subject's name) ever did any of these activities during that time.

(READ LIST, ONE ACTIVITY AT A TIME: "Did (you/subject's name) ACTIVITY ?")

D2. (READ FOR EACH "YES" ACTIVITY FROM D1.)

On how many different days during the past year did (you/subject's name) ACTIVITY ?

(Were you/Was subject's name) always in Pennsylvania when (you/subject's name) ACTIVITY ?

(IF NO) On how many days did (you/subject's name) ACTIVITY in Pa.?

D3. (READ FOR EACH "NO" ACTIVITY FROM D1.)

(Are you/Do you think subject's name is) at all interested in ACTIVITY ?

(IF YES) What has prevented (you/subject's name) from ACTIVITY ?

D4. (READ FOR EACH "YES" ACTIVITY FROM D1.)

a. Now, please think about the most recent time (you/subject's name) ACTIVITY .
Did (you/subject's name) go alone, with family or friends, with a nurse or similar companion, or with an organized group, club, or team?

(IF AN ORGANIZED GROUP, CLUB, OR TEAM - - Was that a group especially for people with disabilities?)

b. The most recent time (you/subject's name) ACTIVITY was that at a public tax-supported or community-fund-supported facility?

(IF YES) At the place where (you/subject's name) ACITIVITY were there facilities or programs designed especially for people with disabilities?

D5. Many people with physical or other disabilities who would like to participate in recreation activities are prevented from doing so because of circumstances beyond their control.

a. Would you say that architectural or physical barriers are

-1 very important -2 important, or -3 not very important 19
in preventing (you/subject's name) from participating in recreation activities?

(IF NEEDED - - Physical barriers are things like rough trails, improperly designed rest rooms, and so on which act as barriers to many people with physical disabilities.)

b. What about difficulties associated with transportation?

Would you say they are

-1 Very important, -2 important, or -3 not very important 20

in preventing (you/subject's name) from participating in recreation activities?

c. What about the lack of special programs for people with disabilities?

Would you say they are

-1 very important, -2 important, or -3 not very important 21

in preventing (you/subject's name) from participating in recreation activities?

d. What about the fees and other costs associated with recreation activities?

Would you say they are

-1 very important -2 important, or -3 not very important 22

in preventing (you/subject's name) from participating in recreation activities?

e. What about attitudes and prejudices of non-disabled people towards people who do have disabilities?

Would you say they are

-1 very important -2 important, or -3 not very important 23

in preventing (you/subject's name) from participating in recreation activities?

D6. Generally speaking, when (you participate/subject's name participates) in recreation activities away from home, (do you prefer/do you think subject's name prefers) to be with other people who (are/have) CONDITION(S) or to be with the general public?

-1 with disabled -2 with public -3 no difference 24

D7. Do you know of any public tax-supported or community-fund-supported recreation facilities in your area with facilities or programs especially designed for people with disabilities?

(RECORD NAME OF EACH FACILITY, KIND OF PLACE - - COMMUNITY CENTER, STATE PARK, ETC. - - AND KIND OF SPECIAL FACILITY OR PROGRAM.)

_____

_____

_____

D8. In (your/subject's) formal education, what is the highest grade or year (you have/subject has) completed? _____ 77

D9. (Are you/Is subject) presently employed?

(IF EMPLOYED) Is that full-time or part-time?

-1 Full-time -2 Part-time

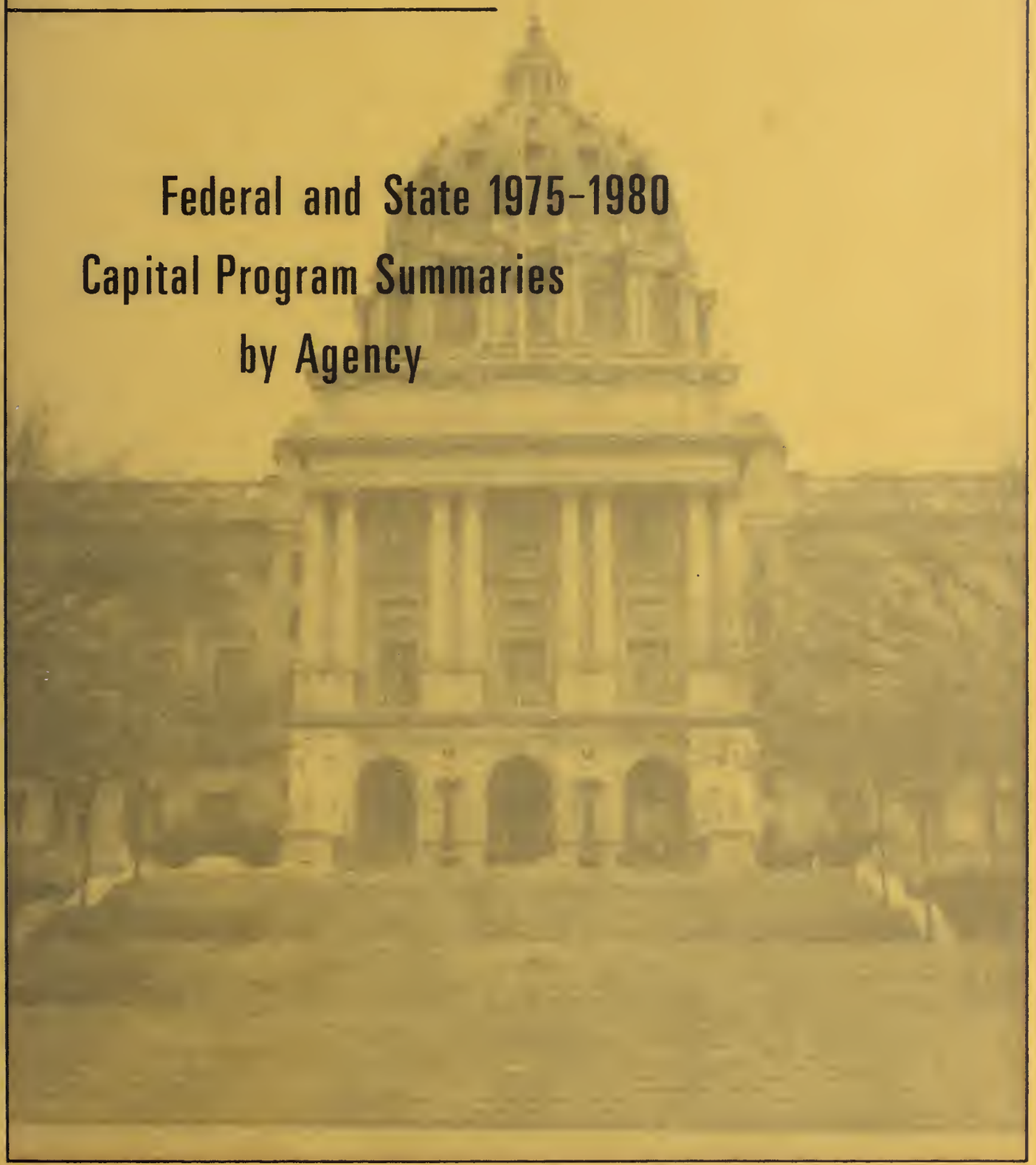
(IF NOT EMPLOYED) (Are you/Is subject) out of work, retired, a student, or a housewife?

-3 Out of work -4 Retired -5 Student or preschool
-6 Housewife -7 Disabled 78

QD1 THRU QD4	c6-7 Card No.	QD1 c19 Yr. Yes	QD2 c20-22 Yr. Days	QD2 c24-26 Pa. Days	Int.	QD3 Card 02 What prevented		QD4a c28 Family/ Alone	Friend	Nurse	Group	Other (SPECIFY)	QD4a c29 Dis. Grp.	QD4b c30 Pub. Fac.	QD4b c31 For Dis.
Swimming	C28	-1			-	25-26	Swimming	-1	-2	-3	-4		-1	-1	-1
Picnicking	C03	-1			-	27-28	Picnicking	-1	-2	-3	-4		-1	-1	-1
Boating, canoeing, or waterskiing	C04	-1			-	29-30	Boating	-1	-2	-3	-4		-1	-1	-1
Fishing	C05	-1			-	31-32	Fishing	-1	-2	-3	-4		-1	-1	-1
Hunting or sport-shooting	C06	-1			-	33-34	Hunting	-1	-2	-3	-4		-1	-1	-1
Tennis	C07	-1			-	35-36	Tennis	-1	-2	-3	-4		-1	-1	-1
Golf or minature golf	C08	-1			-	37-38	Golf	-1	-2	-3	-4		-1	-1	-1
Basketball	C09	-1			-	39-40	Basketball	-1	-2	-3	-4		-1	-1	-1
Baseball or softball	C10	-1			-	41-42	Baseball	-1	-2	-3	-4		-1	-1	-1
Football	C11	-1			-	43-44	Football	-1	-2	-3	-4		-1	-1	-1
Street hockey	C12	-1			-	45-46	St. hockey	-1	-2	-3	-4		-1	-1	-1
Bicycling	C13	-1			-	47-48	Bicycling	-1	-2	-3	-4		-1	-1	-1
Horseback riding	C14	-1			-	49-50	Horseback	-1	-2	-3	-4		-1	-1	-1
Hiking or nature walks	C15	-1			-	51-52	Hiking	-1	-2	-3	-4		-1	-1	-1
Camping	C16	-1			-	53-54	Camping	-1	-2	-3	-4		-1	-1	-1
Off-road motorcycling (or snowmobiles)	C17	-1			-	55-56	Motorcyc.	-1	-2	-3	-4		-1	-1	-1
Sightseeing or driving for pleasure	C18	-1			-	57-58	Sightseeing	-1	-2	-3	-4		-1	-1	-1
Snow skiing	C19	-1			-	59-60	Skiing	-1	-2	-3	-4		-1	-1	-1
Ice Skating	C20	-1			-	61-62	Skating	-1	-2	-3	-4		-1	-1	-1
*Bowling	C21	-1			-	63-64	Bowling	-1	-2	-3	-4		-1	-1	-1
*Museum or zoo	C22	-1			-	65-66	Museum	-1	-2	-3	-4		-1	-1	-1
*Movie, play, or concert	C23	-1			-	67-68	Movie, etc.	-1	-2	-3	-4		-1	-1	-1
*Live sporting event	C24	-1			-	69-70	Sports ev.	-1	-2	-3	-4		-1	-1	-1
*Group for cards or other games	C25	-1			-	71-72	Cards grp.	-1	-2	-3	-4		-1	-1	-1
*Group for arts and crafts	C26	-1			-	73-74	Crafts grp.	-1	-2	-3	-4		-1	-1	-1
*Social or discussion group	C27	-1			-	75-76	Social grp.	-1	-2	-3	-4		-1	-1	-1

appendix 4

Federal and State 1975-1980 Capital Program Summaries by Agency



Appendix 4

FEDERAL AND STATE CAPITAL PROGRAM SUMMARIES 1975-1980

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Introduction

Pennsylvania's Recreation Plan 1975 identifies needs and findings and outlines proposals to meet those needs, some of which won't occur until 1990 or after.

The Commonwealth goes about the implementation of a plan such as this in several ways, one is near term capital investments. This appendix to the plan outlines anticipated capital investments by Federal and State agencies for essentially out-of-door recreational projects in Pennsylvania during the period 1975-1980.

Many, but not all of the projects outlined in this summary are consistent with the analysis of needs and recommendations. The discrepancies exist because capital projects generally require four to five years for design, engineering and site planning. Many projects presented in this summary were developed to implement the 1971 *Statewide Comprehensive Outdoor Recreation Plan* rather than the specific findings of this plan.

The fact that all of the specific projects listed here are not necessarily internally consistent with the findings is not reflective of a lack of commitment to the plan, but is indicative of the fact that a time lag exists between project or program conception and execution.

U. S. DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
SCHEDULE OF ACQUISITION
1975-1980

Region	Type of Area	FY Programmed	Number of Acres	Estimated Cost	Source of Funds				
					STATE			FEDERAL	
					G.O. Bonds	Sp. Fund	PROJECT 500	L&WCF	Other
Philadelphia District									
2	Blue Marsh	1976	205 tracts to	$ 2,160,000					X
		1977	be acquired approximately ½ each year	$ 2,909,400					X
Buffalo District									
9	Diked disposal facility at Erie	1976	101 acres at entrance to harbor	$ 38,000					X
Baltimore District									
7	Raystown Lake	1975	3,000	$ 1,200,000					X
		1976	300	$ 1,000,000					X
		1977	300	$ 700,000					X
4	Tioga-Hammond Lake	1975	4,000	$ 2,000,000					X
		1976	2,700	$ 1,250,000					X
		1977	100	$ 70,000					X
4	Cowanesque Lake	1975	1,200	$ 1,500,000					X
		1976	2,700	$ 3,200,000					X
		1977	100	$ 70,000					X
Total				$16,097,400					

U. S. DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
SCHEDULE OF DEVELOPMENT
1975-1980

Region	Type of Facility	FY Programmed	Estimated Cost	Source of Funds				
				STATE			FEDERAL	
				G.O. Bonds	Sp. Fund	PROJECT 500	L&WCF	Other
Philadelphia District								
2	Blue Marsh Lake	1976	$ 250,000					X
	Day use recreation area	1977	$1,975,000					X
		1978	$1,110,000					X
								X
Pittsburgh District								
10	Youghiogheny River Lake							
	Youghiogheny Recreation Area							
	Sanitary Facilities	1976	$ 185,000					X
	Sanitary Facilities	1977	$ 465,000					X
	Somerfield Recreation Area							
	Sanitary Facilities	1977	$ 185,000					X
	Tionesta Lake							
	Tionesta Recreation Area							
	Sanitary Facilities	1976	$ 100,000					

Region	Type of Facility	FY Programmed	Estimated Cost	Source of Funds				
				STATE			FEDERAL	
				G.O. Bonds	Sp. Fund	PROJECT 500	L&WCF	Other
9	Shenango River Lake							
	Shenango Recreation Area							
	Sanitary Facilities	1976	$ 321,000					X
Buffalo District								
9	Diked disposal facility at Erie	1976	$5,600,000					X
9	Small boat and recreation pier	1978	$3,200,000		X			X
9	Presque Isle Peninsula Interim 5-year Cooperative Beach Nourishment Program	1975-1979	$5,000,000		X			X
Baltimore District								
7	Raystown Lake	1975	$2,150,000					X
	Recreation	1976	$3,150,000					X
	Facilities	1977	$3,500,000					X
4	Tioga-Hammond Lake	1975	$ 170,000					X
	Recreation	1976	$ 700,000					X
	Facilities	1977	$4,300,000					X
4	Cowanesque Lake	1978	$1,600,000					X
	Recreation	1978	$ 720,000					X
	Facilities	1979	$ 500,000					
Total			$35,181,000					

U. S. DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
SCHEDULE OF ACQUISITION
1975-1980

Region	Type of Area	FY Programmed	Number of Acres	Estimated Cost	Source of Funds				
					STATE			FEDERAL	
					G.O. Bonds	Sp. Fund	Project 500	L&WCF	Other
1	Tinicum National Environmental Center	1975	20	$ 150,000				X	
1	Tinicum National Environmental Center	1976	800	1,300,000				X	
9	Erie National Wildlife Refuge	1977	750	280,000					X
9	Erie National Wildlife Refuge	1978	527	210,000					X
Total			2,097	$1,940,000					

U. S. DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
SCHEDULE OF DEVELOPMENT
1975-1980

Region	Type of Facility	FY Programmed	Estimated Cost	Source of Funds				
				STATE			FEDERAL	
				G.O. Bonds	Sp. Fund	PROJECT 500	L&WCF	Other
1	Tinicum National Environmental Center							
	a. Access road and visitor contact station	1977	$150,000				X	
	b. Office-service complex	1979	$300,000				X	
	c. Restoration of water impoundment and control facilities	1980	$150,000				X	
Total			$600,000					

U. S. DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
CAPITAL EXPENDITURES BY REGION
1975-1980

Region	1975-1976	1976-1977	1977-1978	1978-1979	1979-1980	TOTAL
1	$150,000	$1,300,000				$1,450,000
9			280,000	210,000		490,000
Total	$150,000	$1,300,000	$280,000	$210,000		$1,940,000

U. S. DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
SCHEDULE OF ACQUISITION
1976-1980

Region	Type of Area	FY Programmed	Number of Acres	Estimated Cost	Source of Funds: STATE G.O. Bonds	STATE Sp. Fund	STATE PROJECT 500	FEDERAL L&WCF	FEDERAL Other
3	Acquisition of Land and Improvements	1976-1980	400	$ 400,000					X
6	Acquisition of Land and Improvements	1976-1980	1,900	7,000,000					X
7	Acquisition of Land and Improvements	1976-1980	150	175,000					X
Total			2,450	$7,575,000					

U. S. DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
SCHEDULE OF DEVELOPMENT
1976-1980

Region	Type of Facility	FY Programmed	Estimated Cost	Source of Funds				
				STATE			FEDERAL	
				G.O. Bonds	Sp. Fund	PROJECT 500	L&WCF	Other
1	Independence National Historical Park							
	Maintenance Bldg-Facility	1977	$1,760,000					X
	Historic Fulton House	1978	3,543,000					X
	Gloria Dei	1977	451,000					X
2	Hopewell Village National Historical Site							
	Ironmasters House	1977	1,097,000					X
	Visitor Center	1978	734,000					X
	Protection System	1977	68,000					X
3	Delaware Water Gap National Recreation Area							
	Park Tour Road	1976	1,220,000					X
	Penna. District Hdqtrs.	1976	864,000					X
6	Gettysburg National Military Park							
	Peace Light Memorial Roads	1977	$107,000					X
	Interim Visitor Center Roads	1979	676,000					X
	Construct Parking Area	1978	225,000					X
7	Allegheny Portage Railroad National Historic Site							
	Auto Tour	1978	36,000					X
10	Fort Necessity National Battlefield							
	Underground Power Lines	1977	22,000					X
	Braddock Road	1980	164,000					X
Total			$10,967,000					

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
SCHEDULE OF DEVELOPMENT
1975-1980

Region	Type of Facility	FY Programmed	Estimated Cost	Source of Funds				
				STATE			FEDERAL	
				G.O. Bonds	Sp. Fund	PROJECT 500	L&WCF	Other
1	Neshaminy							
	PA-617							
	Recreation Facilities	1976	$ 897,000					X
2	Kaercher Creek							
	PA-478							
	Recreation Facilities	1976	72,000					X
5	Middle Creek							
	PA-636	1977	1,133,200					
	Recreation Facilities	1978	160,000					X
9	Little Shenango							
	PA-487							
	Fish and Wildlife	1976	29,000					X
10	Harmon Creek							
	PA-481	1976	77,000					X
	Fish and Wildlife	1977	34,000					
10	Cross Creek							
	PA-661	1976	389,000					
	Recreation Facilities	1977	351,000					X
10	Wheeling Creek							
	PA-650	1978	1,483,000					
	Recreation Facilities	1979	323,000					X
10	Dunlap Creek							
	PA-470							
	Recreation Facilities	1975	126,000					X
10	Jacobs Creek							
	PA-656							
	Recreation Facilities	1975	95,000					X
Total			$5,169,200					

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
CAPITAL EXPENDITURES BY REGION
1975-1980

Region	1975-1976	1976-1977	1977-1978	1978-1979	1979-1980	TOTAL
1	$	$ 897,000	$	$	$	$ 897,000
2		72,000				72,000
5			1,133,200	160,000		1,293,200
9		29,000				29,000
10	221,000	466,000	385,000	1,483,000	323,000	2,878,000
TOTAL	$ 221,000	$ 1,464,000	$1,518,200	$1,643,000	$ 323,000	$5,169,200

ALLEGHENY NATIONAL FOREST
U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
SCHEDULE OF ACQUISITION
1975-1980

Regions	Type of Area	FY Programmed	Number of Acres	Estimated Cost	Source of Funds: STATE G.O. Bonds	STATE Sp. Fund	STATE PROJECT 500	FEDERAL L&WCF	FEDERAL Other
8 & 9	Acquisition of Land and Improvements	1975	3,850	$1,400,000				X	
	〃	1976	500	100,000				X	
	〃	1977	2,330	700,000				X	
	〃	1978	2,330	700,000				X	
	〃	1979	2,330	700,000				X	
	〃	1980	2,330	700,000				X	
Total			13,670	$4,300,000					

ALLEGHENY NATIONAL FOREST
U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
SCHEDULE OF DEVELOPMENT
1975-1980

Region	Type of Facilities	FY Programmed	Estimated Cost	Source of Funds				
				STATE			FEDERAL	
				G.O. Bonds	Sp. Fund	PROJECT 500	L&WCF	Other
8 & 9	Electrical, Water & Sewage Systems Roads & Recreation Facilities	1975	$ 220,000					X
	"	1976	180,000					X
	"	1977	200,000					X
	"	1978	225,000					X
	"	1979	250,000					X
	"	1980	250,000					X
Total			$1,325,000					

PENNSYLVANIA GAME COMMISSION
SCHEDULE OF ACQUISITION
1976-1980

Region	Type of Area	FY Programmed	Number of Acres	Estimated Cost	Source of Funds			
					STATE		FEDERAL	
					G.O. Bonds	Sp. Fund	L&WCF	Other
1	State Game Lands	76	2,200	$ 660,000		X	X	
3	State Game Lands	76,77	1,700	510,000		X	X	
4	State Game Lands	77	400	90,000		X	X	
5	State Game Lands	77, 78, 79, 80	19,100	5,730,000		X	X	
6	State Game Lands	76, 78, 79, 80	2,500	765,000		X	X	
7	State Game Lands	76, 77, 78, 79	8,750	2,625,000		X	X	
8	State Game Lands	77, 79, 80	3,700	1,110,000		X	X	
9	State Game Lands	76, 78, 79, 80	2,500	750,000		X	X	
10	State Game Lands	77, 78, 79, 80	4,900	1,470,000		X	X	
Total			15,750	$13,710,000				

PENNSYLVANIA GAME COMMISSION
SCHEDULE OF DEVELOPMENT
1976-1980

Region	Type of Facility	FY Programmed	Estimated Cost	Source of Funds				
				STATE			FEDERAL	
				G.O. Bonds	Sp. Fund	PROJECT 500	L&WCF	Other
Statewide	State Game Lands Access & Habitat Improvement 130 Areas	76	$1,000,000			X		
Statewide	State Game Lands Access & Habitat Improvement 144 Areas	76	$6,300,000		X			X
Statewide	Target Ranges (20)	76	$ 500,000			X		
Statewide	Waterfowl Development State Forests (9 Sites)	76	$ 450,000			X		
Statewide	State Game Lands Access & Habitat Areas Access & Habitat Improvement 130 Areas	77	$1,000,000			X		
Statewide	State Game Lands Access & Habitat Areas Access & Habitat Improvement 144 Areas	77	$6,615,000		X			X
Statewide	State Game Lands Access & Habitat Areas Access & Habitat Improvement 130 Areas	78	$1,000,000			X		
Statewide	State Game Lands Access & Habitat Areas Access & Habitat Improvement 144 Areas	78	$6,950,000		X			X
Statewide	State Game Lands Access & Habitat Improvement 130 Areas	79	$ 500,000			X		
Statewide	State Game Lands Access & Habitat Improvement 144 Areas	79	$ 7,300,000		X			
Statewide	State Game Lands Access & Habitat Improvement 130 Areas	80	$ 450,000			X		
Statewide	State Game Lands Access & Habitat Improvement 144 Areas	80	$ 7,765,000		X			X
Total			$39,830,000					

PENNSYLVANIA FISH COMMISSION
SCHEDULE OF DEVELOPMENT
CAPITAL EXPENDITURES BY FUNDS
FY 1976 - 1980

YEAR	FISH	BOAT	"500"	TOTAL
1976	$ 435,000	$ 275,000	$1,330,000	$ 2,040,000
1977	591,000	474,000	2,085,000	3,150,000
1978	480,000	615,000	975,000	2,070,000
1979	477,500	340,500	2,450,000	3,268,000
1980	500,000	340,000	1,350,000	2,190,000
Total	$ 2,483,500	$ 2,044,500	$ 8,190,000	$12,718,000

PENNSYLVANIA FISH COMMISSION
SCHEDULE OF DEVELOPMENT
CAPITAL EXPENDITURES BY REGION
FY 1976 - 1980

Region	1976	1977	1978	1979	1980	Total
1	$ —	$ 250,000	$ —	$ —	$ —	$ 250,000
2	—	—	—	—	—	—
3	10,000	1,100,000	370,000	5,000	—	1,485,000
4	—	—	40,000	—	—	40,000
5	762,000	816,000	150,000	675,000	70,000	2,473,000
6	65,000	20,000	58,000	320,000	440,000	903,000
7	—	105,000	165,000	450,000	285,000	1,005,000
8	20,000	55,000	—	—	—	75,000
9	770,000	200,000	605,000	1,488,000	1,025,000	4,088,000
10	51,000	345,000	280,000	—	—	676,000
Statewide	362,000	259,000	402,000	330,000	370,000	1,723,000
Total	$2,040,000	$3,150,000	$2,070,000	$3,268,000	$2,190,000	$12,718,000

PENNSYLVANIA FISH COMMISSION
SCHEDULE OF DEVELOPMENT
FY 1976 - 1980

HATCHERY IMPROVEMENT PROGRAM

Region	Type of Facility	FY Programmed	Estimated Cost	Source of Funds				
				State			Federal	
				Fish	Boat	"500"	L&WCF	Other
3	Pleasant Mount Fish Cultural Station							
	Improvements to Existing Facilities	1976	$ 10,000	X				
		1978	20,000	X				
		1979	5,000	X				
	New production units & waste treatment facilities	1977	850,000			X	X	
5	Pleasant Gap Fish Cultural Station							
	New warmwater production units	1979	50,000	X			X	
	New dwelling	1979	45,000	X				
5	Lower Spring Creek Fish Cultural Station							
	New warmwater & trout production units	1976	70,000			X		
		1977	10,000	X				
	New hatch house & administration bldg.	1979	350,000			X	X	
5	Upper Spring Creek Fish Cultural Station							
	New trout & warmwater production units	1976	20,000			X	X	
		1978	100,000			X	X	
	Improvements to existing facilities	1979	200,000			X	X	
		1980	50,000			X	X	
5	Benner Springs Fish Cultural Station							
	New production units, waste treatment facilities, and improved research facilities.	1976	600,000			X		
		1977	750,000			X		
5	Benner Springs Fish Cultural Station							
	Improvements to existing facilities	1978	30,000	X				X
		1979	10,000	X				X
		1980	20,000	X				
6	Lancaster County							
	New warmwater fish cultural station							

Region	Type of Facility	FY Programmed	Estimated Cost	Source of Funds: State — Fish	State — Boat	State — "500"	Federal — L&WCF	Federal — Other
	New warmwater fish cultural station							
	Segment II	1980	400,000			X	X	
6	Big Spring Fish Cultural Station							
	Improvements to existing facilities	1976	10,000	X				
		1977	10,000	X				
6	Huntsdale Fish Cultural Station							
	Improvements to existing facilities	1976	30,000			X		
		1977	10,000	X				
		1978	10,000	X				
6	Cumberland County—White Hill Instit.							
	New fish propagation units	1980	40,000	X			X	
7	Piney Springs, Blair County							
	Improvements to existing facilities	1977	25,000	X				X
		1978	15,000	X				X
	New trout cultural station	1978	100,000			X	X	
		1979	200,000			X	X	
		1980	200,000			X	X	
7	Reynoldsdale Fish Cultural Station							
	Waste treatment facilities and new warmwater production units	1977	50,000			X	X	
		1978	50,000			X	X	
		1979	250,000			X	X	
	New dwelling	1980	45,000	X				
	Improvements to existing facilities	1980	40,000	X				
8	Oswayo Fish Cultural Station							
	Improvements to existing facilities	1976	20,000	X				
	New dwelling	1977	45,000	X				
9	Corry Fish Cultural Station							
	Improvements to existing facilities	1976	10,000	X				
	New warmwater production units and waste treatment facilities	1980	250,000			X	X	
	New dwelling	1980	45,000	X				

PENNSYLVANIA FISH COMMISSION
SCHEDULE OF DEVELOPMENT
FY 1976 - 1980

HATCHERY IMPROVEMENT PROGRAM (Continued)

Region	Type of Facility	FY Programmed	Estimated Cost	Source of Funds: State — Fish	State — Boat	State — "500"	Federal — L&WCF	Federal — Other
9	Tionesta Fish Cultural Station							
	Improvements to existing facilities	1976	$ 10,000			X		
		1977	10,000	X				
	New dwelling	1978	45,000	X				
	New visitors center & administration building	1979	100,000			X	X	
		1980	200,000			X	X	
9	Union City Fish Cultural Station							
	New well & improvements to existing warmwater production facilities	1977	60,000	X			X	
	Improvements to existing facilities	1979	5,000	X				
9	Raine Fish Cultural Station							
	Improvements to existing facilities	1976	20,000	X				X
		1977	10,000	X				X
		1978	10,000	X				
9	Erie County—Divine Word Fish Cultural Station							
	New salmon rearing & imprinting units	1978	250,000			X		X
9	Erie County—Hotchkiss Fish Cultural Station							
	New salmon rearing & imprinting units	1980	250,000			X		X
9	Linesville Fish Cultural Station							
	Improvements to existing facilities	1979	10,000	X				
		1980	5,000	X				
Statewide								
	Improvements to existing facilities	1976	114,500	X				
	Improvements to existing facilities	1977	85,000	X				
	Improvements to existing facilities	1978	51,000	X				
	Improvements to existing facilities	1979	100,000	X				
	Improvements to existing							

PENNSYLVANIA FISH COMMISSION
SCHEDULE OF DEVELOPMENT
FY 1976 - 1980

ADMINISTRATIVE FACILITIES PROGRAM

Region	Type of Facility	FY Programmed	Estimated Cost	Source of Funds				
				State			Federal	
				Fish	Boat	"500"	L&WCF	Other
5	Stackhouse School & Administration Building Improvements & addition to existing structure	1976	$ 5,000	X				
		1976	5,000		X			
		1977	20,000	X				
		1977	20,000		X			
9	Law Enforcement Headquarters—Northwest Region New Office Building	1977	25,000	X				
		1977	25,000		X			
		1978	25,000	X				
		1978	25,000		X			
6	Southeast Maintenance Area Recreation facilities—maintenance building	1979	60,000	X				
		1979	60,000		X			
Statewide	Law Enforcement Facilities							
	New Patrol Boat Docks	1976	10,000	X	X			X
	New Patrol Boat Docks	1977	10,000	X	X			X
	New Patrol Boat Docks	1978	10,000	X	X			X
	New Patrol Boat Docks	1980	10,000	X	X			X

PENNSYLVANIA FISH COMMISSION
SCHEDULE OF DEVELOPMENT
FY 1976 - 1980

LAKE AND WATERWAY ACCESS IMPROVEMENT PROGRAM

Region	Type of Facility	FY Programmed	Estimated Cost	Source of Funds				
				State			Federal	
				Fish	Boat	"500"	L&WCF	Other
1	Delaware or Schuylkill River-Vicinity of Philadelphia New Boating Access	1977	$ 200,000		X		X	
1	Delaware River, Bristol Access, Bucks County - Improvements to existing facilities	1977	20,000		X		X	
4	Susquehanna River, North Branch, Falls, Wyoming County New boating and fishing access	1978	20,000	X				X
		1978	20,000		X			
5	Juniata River, Muskrat Springs Access, Juniata County Improvements to existing facilities	1976	10,000	X				X
		1976	10,000		X			
5	Susquehanna River - Kerlin Access New boating and fishing access	1976	19,000	X				X
		1976	23,000		X			
		1977	10,000	X				X
		1977	6,000		X			
5	Susquehanna River - Hoover's Island Access - Improvements to existing facilities	1978	10,000	X				X
		1978	10,000		X			
		1979	10,000	X				X
		1979	10,000		X			
6	Susquehanna River - Dauphin County New boating and fishing access	1978	24,000	X				X
		1978	24,000		X			
6	Susquehanna River - Goldsboro Access Improvements to existing facilities	1976	10,000	X				

Region	Type of Facility	FY Programmed	Estimated Cost	Source of Funds				
				State			Federal	
				Fish	Boat	"500"	L&WCF	Other
7	Ebensburg Reservoir Access, Cambria Co.							
	New fishing access	1977	$ 30,000	X			X	
9	Allegheny River Access, Tidioute, Warren County							
	New boating and fishing access	1977	20,000	X			X	
		1977	20,000		X		X	
9	Clarion River Access							
	Public use facilities improvements	1977	30,000		X			
9	Muddy Creek Lake, Crawford County (COE)							
	New fishing & boating access facilities	1978	125,000		X			
		1978	125,000			X		X
9	Lake Erie - Walnut Creek Harbor							
	Public use facility improvement and Harbor of Safety	1976	600,000			X		
		1976	100,000		X			
9	Lake Erie - Elk Creek Harbor (COE)							
	New boating harbor & jetties	1979	1,150,000			X		
	New boating access facilities	1979	223,000		X		X	
		1980	275,000		X		X	X
9	Bessemer Quarry Access, Lawrence Co.							
	Improvements to existing facilities	1976	30,000	X				
10	Keystone Lake Access, Armstrong Co.							
	Improvements to existing facilities	1977	50,000	X			X	
		1977	50,000		X		X	
10	Allegheny River - Bradys Bend Access							
	New boating and fishing access facilities	1976	24,000	X			X	
		1976	24,000		X		X	
		1977	6,000	X			X	
		1977	6,000		X		X	
10	Ohio River - Rochester Access							
	Boarding dock installation	1976	3,000		X			
10	Ohio River - Little Beaver Creek							
	New boating access	1977	48,000		X		X	
		1978	25,000		X		X	
10	Ohio River - Allegheny River Vicinity of Pittsburgh							
	New boating access	1977	100,000			X	X	
		1978	100,000		X		X	
10	Mahoning Lake, Armstrong Co. (COE)							
	New fishing & boating access facilities	1977	85,000			X		
		1978	85,000		X			

PENNSYLVANIA FISH COMMISSION
SCHEDULE OF DEVELOPMENT
FY 1976 - 1980

LAKE AND WATERWAY ACCESS IMPROVEMENT PROGRAM (Continued)

Region	Type of Facility	FY Programmed	Estimated Cost	Source of Funds				
				State			Federal	
				Fish	Boat	"500"	L&WCF	Other
10	Youghiogheny River - Elizabeth Township, Allegheny County							
	New fishing and boating access	1978	$ 35,000	X			X	
		1978	35,000		X		X	
Statewide	Selective Sites	1976	82,500		X		X	
		1976	80,000	X				X
		1977	24,000		X		X	
		1977	80,000	X				X
		1978	146,000		X		X	
		1978	85,000	X				X
		1979	25,000		X		X	
		1979	125,000	X				X
		1980	40,000		X		X	
		1980	135,000	X				X

PENNSYLVANIA FISH COMMISSION
SCHEDULE OF DEVELOPMENT
FY 1976 - 1980

STREAM AND WATERWAYS IMPROVEMENT PROGRAM

Region	Type of Facility	FY Programmed	Estimated Cost	Source of Funds: State — Fish	State — Boat	State — "500"	Federal — L&WCF	Federal — Other
1	Fairmount Dam Fishway, Schuylkill River, Philadelphia County (Engineering Only)	1977	$ 30,000	X				X
6	Big Spring Creek, Cumberland Co.	1976	15,000	X				X
8	Kettle Creek, Potter County	1977	10,000	X				
Statewide	Selective Improvements	1976	30,000	X				
		1977	20,000	X				
		1978	80,000	X				X
		1979	35,000	X				
		1980	40,000	X				

PENNSYLVANIA FISH COMMISSION
SCHEDULE OF DEVELOPMENT
FY 1976 - 1980

LAKE IMPROVEMENT PROGRAM

Region	Type of Facility	FY Programmed	Estimated Cost	Source of Funds: State — Fish	State — Boat	State — "500"	Federal — L&WCF	Federal — Other
3	Ford Lake Renovate existing impounding structure	1977	$ 250,000			X	X	
3	Reinings Pond Renovate existing impounding structure	1978	350,000			X		X
Statewide	Improvements to existing facilities	1976	45,000	X	X			X
		1977	40,000	X	X			X
		1978	30,000	X	X			X
		1979	45,000	X	X			X
		1980	40,000	X	X			X

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
SCHEDULE OF DEVELOPMENT
1975-1980

Region	Facility Project	Fiscal Year	Estimated Cost	Source of Funds				
				State			Federal	
				G.O. Bonds	Sp. Fund	Project 500	L&WCF	Other
1	Valley Forge:							
	Monuments & Signs							
	Employment Housing	1975-1976	$ 461,220	X		X	X	X
	Construction of Facilities							
	Restoration Work							
	Land Acquisition	1976-1977	9,329,768	X		X	X	X
	Buildings & Grounds Improvement							
	Restoration	1977-1978	5,910,340	X			X	X
1	Washington Crossing:							
	Equipment, Building							
	Addition	1975-1976	235,065	X				
	Building & Ground Improvement							
	Land Acquisition	1976-1977	1,556,820	X		X	X	X
	Reconstruction	1977-1978	276,750	X				
1	Port of History:							
	Fixed Exhibits	1975-1976	618,200	X				
1	Governor Printz Park:							
	Development	1975-1976	343,200	X				
	Fixed Exhibits	1976-1977	184,500	X				
1	Brandywine Battlefield:							
	Equipment, Land							
	Acquisition	1975-1976	1,705,000	X			X	
1	Graeme Park:							
	Restoration	1975-1976	240,625	X				
1	Mather Mill:							
	Restoration	1976-1977	599,810	X				
1	Pennsbury Manor:							
	Building Addition	1977-1978	332,100	X				
1	Neighbor Museum: (Philadelphia)							
	Construction	1977-1978	2,063,000	X				
	Equipment	1978-1979	120,000	X				
1	Old Chester Courthouse:							
	Restoration	1977-1978	$ 207,050	X				

Region	Facility Project	Fiscal Year	Estimated Cost	Source of Funds				
				State			Federal	
				G.O. Bonds	Sp. Fund	Project 500	L&WCF	Other
3	Anthracite Museum: (Eckley Unit)							
	Security System, Restoration	1975-1976	791,800	X				
	Restoration, Improvements	1976-1977	3,185,000	X				
3	Anthracite Musuem: (Lackawanna							
	Unit) Fixed Exhibits	1978-1979	250,000	X				
3	Anthracite Museum: (Schuylkill							
	Unit) Fixed Exhibits	1978-1979	622,500	X				
4	French Azilum:							
	Road & Lot Construction, Building Construction & Restoration	1976-1977	1,045,430	X		X	X	
4	Old Mill Village:							
	Construction	1976-1977	661,000	X				
	Fixed Exhibits	1977-1978	170,800	X				
	Restoration, Development	1978-1979	622,500	X				
	Equipment	1979-1980	60,000	X				
5	Curtain Village:							
	Reconstruction	1975-1976	937,500	X		X		
	Construction Visitor Center & Exhibits	1978-1979	544,000	X				
	Equipment	1979-1980	3,825,000	X				
5	Fort Augusta:							
	Restoration	1975-1976	168,300	X				
	Restoration	1977-1978	166,050	X				
5	Military Museum:							
	Security System	1975-1976	42,500	X				
	Construction	1976-1977	437,500	X		X		
	Exhibits	1977-1978	150,000	X				
	Equipment	1978-1979	25,000	X				
6	William Penn Museum:							
	Facility Improvements, Exhibits	1975-1976	667,900	X				
	Museum/Archival Building Storage Construction	1975-1976	2,500,000	X				
	Equipment	1977-1978	200,000	X				
6	Farm Museum:							
	Security System	1975-1976	375,000	X				
	Museum Improvements	1976-1977	573,250	X				
	Construction	1977-1978	3,206,000	X				
	Equipment	1978-1979	75,000	X				
	Exhibits	1979-1980	731,250	X				
6	Railroad Museum:							
	Security System, Exhibits	1975-1976	451,000	X				
	Equipment	1976-1977	100,000	X				
	Construction, Exhibits	1977-1978	2,610,000	X				
6	Fort London:							
	Construction	1976-1977	136,342	X				

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
SCHEDULE OF DEVELOPMENT
1975-1980

Region	Facility Project	Fiscal Year	Estimated Cost	Source of Funds				
				State			Federal	
				G. O. Bonds	Sp. Fund	Project 500	L&WCF	Other
6	Ephrata Cloister:							
	Restoration	1976-1977	683,665	X				
7	Somerset Historical Center:							
	Security System	1975-1976	70,000	X				
	Construction	1976-1977	403,000	X				
	Restoration & Development	1978-1979	450,000	X				
	Equipment	1979-1980	50,000	X				
7	John Brown House:							
	Restoration	1976-1977	246,050	X				
8	Lumber Museum:							
	Construction, Exhibits	1976-1977	650,000	X				
9	Cashier's House:							
	Equipment	1975-1976	82,000	X				
9	Custom House:							
	Restoration	1975-1976	147,600	X				
9	Fort LeBoeuf:							
	Restoration	1976-1977	166,050	X				
9	Flagship Niagara:							
	Construction	1976-1977	147,600	X				
9	Pit Hole:							
	Construction	1976-1977	246,000	X				
10	Fort Pitt Museum:							
	Security System	1975-1976	42,800	X				
10	Old Economy Village:							
	Development, Restoration	1975-1976	1,915,500	X		X		
	Restoration	1976-1977	612,638	X				
10	Bushy Run Battlefield:							
	Reconstruction, Road Construction	1975-1976	467,400	X			X	
10	Neighbor Museum, Pittsburgh:							
	Construction	1977-1978	1,650,800	X				
	Equipment	1978-1979	80,500	X				
10	Bituminous Coal & Coke Museum:							
	Construction	1979-1980	3,825,000	X				
Total			$61,759,673					

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
CAPITAL EXPENDITURES BY REGION
1975-1980

Region	1975-1976	1976-1977	1977-1978	1978-1979	1979-1980	TOTAL
1	$ 3,603,310	$11,670,898	$ 8,789,240	$ 120,000	$	$24,183,448
2						
3	791,800	3,185,000	872,500			4,849,300
4		1,706,430	170,000	622,500	60,000	2,558,930
5	1,148,300	437,500	316,050	569,000	3,825,000	6,295,850
6	3,993,900	1,793,257	5,816,000	75,000	731,250	12,409,407
7	70,000	1,299,000		450,000	50,000	1,869,000
8		650,000				650,000
9	229,600	559,650				789,250
10	2,425,400	621,638	1,650,000	80,000	3,825,000	8,602,038
TOTAL	$12,262,310	$21,923,373	$17,613,790	$1,916,500	$8,491,050	$62,207,223

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES
CAPITAL EXPENDITURES BY REGION
FY 1975-1980

Region	1975-1976	1976-1977	1977-1978	1978-1979	1979-1980	TOTAL
1	$ 455,200	$ 1,252,200	$ 1,940,000	$ 725,000	$ 200,000	$ 4,572,400
2	2,267,800	2,267,800	2,720,000	87,500		7,343,100
3	5,460,750	1,588,750	2,935,000	8,117,500	275,000	18,377,000
4	1,658,000	1,862,500	100,000		380,000	4,000,500
5	450,000	813,500	290,000	120,000		1,673,500
6	2,899,000	4,159,000	480,000	3,800,000		12,838,000
7	334,000	4,686,500	430,000	60,000	1,670,000	7,180,500
8	303,000	478,500		1,670,000	775,000	3,226,500
9	2,549,500	1,574,000	810,000	2,340,000	650,000	7,923,500
10	2,590,500	3,162,500	4,588,000	60,000	3,000,000	13,401,000
TOTAL	$18,967,750	$21,845,250	$14,293,000	$16,980,000	$8,450,000	$80,536,000

WERT
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Nov.—Dec. 1986
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